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# SAMOTHRACE: THIRD PRELIMINARY REPORT

(PLATES 1-13)

WORK was resumed in the Sanctuary of the Great Gods of Samothrace in 1948 after a long interruption caused by the war.<sup>1</sup> It will be recalled that in 1938 and 1939 the Archaeological Research Fund of New York University had begun to excavate the central area of this sanctuary. The discovery of the Anaktoron, a great archaic initiation hall, of the adjoining small Sacristy, and the complete excavation of the circular building dedicated by Queen Arsinoe led to the partial uncovering

<sup>1</sup> This excavation is carried out by the Archaeological Research Fund of New York University under the auspices of the American School of Classical Studies at Athens and under my direction. Dr. Phyllis Williams Lehmann, Assistant Professor in the Art Department of Smith College, who has participated in these excavations from the beginning when she was still a student at New York University, served as Assistant Field Director and was particularly in charge of the work in the "New Temple." Mr. Stuart M. Shaw of the Educational Department of the Metropolitan Museum of Art, who had already been with us in 1939, again served as architect. His enthusiasm and knowledge continue to be an invaluable asset of our enterprise. The plan and sections published in this report are the fruit of his skill and labor. The other members of our staff were: Dr. Phyllis Pray Bober, Instructor at Wellesley College and formerly a student at New York University; Professor Daniel Woods of Manhattanville College of the Sacred Heart and New York University; and Mrs. Elsbeth Dusenbery of New York University.

We were happy to have again with us as representative of the Greek Government Mr. Vassilios Kallipolitis, now Ephoros of Antiquities at Beroia. His friendship and his familiarity with Samothrace have proved to be of the greatest importance to our work.

Our faithful foreman, Mr. Georgios Nikolaidis, was again in charge of all work. His efficiency in supervising not only the excavation but also the work of restoration and protection and the building of the Museum was indispensable.

The resumption of this work for several years has been made possible by a grant from the Bollingen Foundation. We are especially indebted to its Vice President, Mr. John D. Barrett, and to its Treasurer, Mr. Ernest Brooks, Jr., for their personal interest. A private donor who wishes to remain unnamed contributed a subsidy to meet an unexpected increase in the building expenses of the Museum.

Many individuals, too numerous to list, have been helpful in various ways at a time when the carrying out of such a task forces one to rely heavily on such assistance in view of the post-war situation and the particular plight of Greece. As in the past, the Greek authorities have done everything they could to sponsor and further our work. The officers of the American School in Athens, in particular Acting Director Oscar Broneer, have given much time and thought to our needs. The authorities of New York University have been equally helpful, as were the officers of the American Express Company and several members of the American Missions in Greece.

Professors Homer Thompson, Benjamin D. Meritt and Carl Blegen, as well as Dr. Saul Weinberg and Miss Lucy Talcott, have given us valuable advice and help.

Above all, I should acknowledge with gratitude the work of my staff. We have worked in such close collaboration that the share of individuals in obtaining the results submitted in this report cannot be defined.



of early ruins in the depths beneath these buildings. These architectural discoveries, together with an increasing number of inscriptions and relics of all kinds, had begun to throw considerable light on the history of the sanctuary—whose fame in antiquity almost equalled that of Eleusis—and on its mysterious rites.<sup>2</sup> The Samothracian cult had been even more enigmatic than other mystery religions of the ancient world and continued excavation was the only means by which knowledge of its character and history could be established.

The war intervened, causing wanton destruction of and irreparable damage to ruins and finds, a process furthered by natural forces. The range and nature of this damage, ascertained by us in 1947, have been reported elsewhere.<sup>3</sup> The work of cleaning and of protection carried out during the campaign of 1948 has added deplorable details to what could be stated a year before. These facts have been recorded but we may dispense with enumerating them in this preliminary report.<sup>4</sup> A very considerable amount of our work in 1948 was dedicated to cleaning and protecting the ruins, to repairing damage where it could be repaired, and to identifying finds of previous campaigns which had been thrown into confusion by Bulgarian soldiery. It was necessary to build a protective terrace wall in lieu of a destroyed antique wall to the east of the Arsinoeion and, above all, to finish the construction and provisional installation of a local museum near the excavation. We trust that this building (Plate 2, Fig. 2),<sup>5</sup> modest as it is in its present form, will permanently secure the safety of the works of art and cultural relics stored within it.

In the following pages, we shall concern ourselves only with the results of our archaeological research and excavation obtained in this first post-war campaign. These results are manifold: they throw new light on two of the most important buildings of Samothrace, the archaic Anaktoron and the famous structure widely known as the "New Temple"; they reveal the character of the earliest ruins buried

<sup>2</sup> See the first and second preliminary reports published in *A.J.A.*, XLIII, 1939, pp. 133-144, and XLIV, 1940, pp. 328-358. Also: *A.J.A.*, XLIV, 1940, pp. 485 ff. (Herbert Bloch) and XLV, 1941, pp. 577 ff. (A. D. Nock); *Hesperia*, XII, 1943, pp. 115 ff. (K. Lehmann).

<sup>3</sup> *Archaeology*, I, 1948, pp. 44 ff.

<sup>4</sup> Such details are: The partial destruction of the early orthostate wall under the Sacristy (*A.J.A.*, XLIV, 1940, pp. 350 f., figs. 22 and 30) and the disappearance of the centre stone of the Arsinoeion (*ibid.*, p. 339 and fig. 15), though both had been covered by protective earth before the invasion; the partial destruction of the altar foundations in the Arsinoeion (*ibid.* and fig. 16) which made our decision to remove its debris in the interest of a full excavation of the earlier strata easier; the complete destruction of the westernmost section of the red orthostate wall, and even of its foundation, in the northern part of the Anaktoron (*A.J.A.*, XLIII, 1939, p. 138, fig. 8, and p. 330, figs. 3, 6). The willful and total destruction of marble blocks from the superstructure of the Arsinoeion by Bulgarian soldiery can now be assessed as amounting to at least twenty large blocks, mostly steps, but including one interior architrave and a triglyph.

<sup>5</sup> Designed by Mr. Shaw. The present installation is provisional. If means allow, we plan a future extension for which provisions have been made in designing the present nucleus.



under and extending beyond the Arsinoeion; they include finds of great importance for the history of Samothrace and its religious rites; finally, they will enable us for the first time to see at least the outline of the long formative history of this mysterious cult and some of the basic elements of its creed and rites.

In the area of the Anaktoron, the Sacristy, and the region to the east of the Arsinoeion (Plate 1, Fig. 1), we limited ourselves to cleaning and conservation. The latter, however, included the removal of earth above and behind the continuous eastern outline of these buildings in order to prevent future damage by pressure and avalanche. We, therefore, dug away earth on this hillside to an average distance of about 3.50 m. from the eastern walls of the Anaktoron, the Sacristy, and the terrace walls to the east of the Arsinoeion (see Plate 1, Fig. 1). In the course of this work there appeared along the entire length of the Anaktoron and at a distance of 0.50 m. from it a polygonal terrace wall (Plate 3, Fig. 3) which turned west at its northeastern corner and is partially preserved opposite the northern wall of the initiation hall.<sup>6</sup> It is obvious that this terrace wall was built about 500 B.C., together with the archaic Anaktoron, and that it supported to the east and north a terrace or road leading around the building from the south to its western entrance side. The upper level of this terrace is now washed away. But the preserved structure is still upright to about the varying height of the east wall of the Anaktoron. It is a respectable work of archaic Greek engineering. The obvious purpose of building this terrace at a distance from the walls of the Anaktoron was to safeguard them from pressure and to create an interval in which rain water could flow off toward the western river valley. The scheme is well-known in later Greek architecture where, in a famous inscription from Pergamon, it is called *peristasis*; in fact, in that document, the width of such a *peristasis* as defined is almost identical with that of the Anaktoron.<sup>7</sup> Its presence here shows that the device is an archaic Greek invention rather than a Hellenistic one as was previously assumed.

Though an exhaustive examination of the narrow open space of this *peristasis* has not yet been completed, we extracted from it numerous fragments of the roof of the Anaktoron in its last, Hellenistic, stage. Eaves tiles and cover tiles with antefixes were preserved as they had fallen down from the edge of the roof in the final catastrophe. Sufficient fragments of these tiles were preserved to allow the restoration of a part of the roof (Plate 4, Figs. 4, 5). The flat eaves tiles (0.502-0.509 m. wide and approximately 0.60 m. long) show lateral recesses with projections to be tightly

<sup>6</sup> We first thought this piece, discovered in 1938, belonged to an earlier Anaktoron: *A.J.A.*, XLIII, 1939, p. 135. It is now evident that the earliest stamped earth floor in the Anaktoron does not precede this building period (as assumed *op. cit.*, XLIII, 1939, p. 135 and XLIV, 1940, p. 332) but belongs to it.

<sup>7</sup> For *peristasis* see F. Noack and K. Lehmann-Hartleben, *Baugeschichtliche Untersuchungen am Stadtrand von Pompeji*, Berlin, 1935, pp. 210 ff., with bibliography. The inscription from Pergamon (*Ath. Mitt.*, 1902, pp. 31 ff.) defines the width as *μὴ πλεῖον πῆχυνος*.



fitted against each other at the front—a rare scheme<sup>8</sup> which may possibly be explained by the technique of wedging into these recesses upper ridges of wooden rafters designed to keep the roof tiles firmly in position. The antefixes are of the early Hellenistic type already known from fragments,<sup>9</sup> but they show varieties in clay and execution attesting one or several later restorations. A fragment of a corner tile of triangular shape seems to indicate that the Anaktoron had a hipped roof.<sup>10</sup>

Ironically enough, the original intention of the archaic architect in building a peristasis to protect the Anaktoron was reversed in effect after the destruction of the sanctuary. The upper boulder-like blocks of the archaic wall were washed down and pressed against the eastern wall of the Anaktoron, causing it to slant inward. The peristasis ended at the southeast corner of the Anaktoron. Farther south, the eastern wall of the Sacristy and the terrace walls to the east of the Arsinoeion were cut into and lean against the hard clayish natural soil of the hillside. Observation of finds from the fill and collapsed débris of the terrace wall confirmed the chronology previously suggested.<sup>11</sup> Only the southernmost section of this terrace wall (opposite section K-J) was contemporary with the Arsinoeion, the central section (which had collapsed after the war and has been rebuilt by us) having been constructed in the first century B.C. (opposite section I), while the section close to the Sacristy is the result of a third, late antique, restoration.

Let us abandon this northern region of the sanctuary, for the time being, and return to it later. At the southern end of the zone we propose to explore fully, there appear the conspicuous overgrown ruins of the "New Temple." This building, famous for its unique inner apse, figures in almost all handbooks as an outstanding example of Hellenistic architecture, having been restored by the nineteenth-century Austrian excavators as a Doric "temple" preceded by a hexastyle prostyle porch with a double row of columns and having a cella curiously divided by parapets into a "nave" and two "aisles," terminating in a segmental apse where a sacrificial pit for pouring libations replaced the base of a cult image customarily found in a "temple."<sup>12</sup>

The necessity of removing from this important building the perilous overgrowth which has done increasing harm to it in the seventy-five years since the Austrian excavation primarily motivated our decision to attack this structure at the present time. But our curiosity had also been stimulated by our previous experience in the Arsinoeion,<sup>13</sup> where the Austrian excavators had not fully uncovered or explored even

<sup>8</sup> Compare Buschor, *Tondächer*, I, Berlin, 1929, pp. 10 f.

<sup>9</sup> *A.J.A.*, XLIV, 1940, pp. 332 ff., fig. 10.

<sup>10</sup> As already suggested, *A.J.A.*, XLIII, 1939, p. 135.

<sup>11</sup> *A.J.A.*, XLIV, 1940, p. 342.

<sup>12</sup> A. Conze and others, *Archäologische Untersuchungen in Samothrake*, I, 1875, pp. 9 ff., 20 ff., 24 ff., 55 ff., pls. 11 ff.; II, 1880, pp. 21 ff., pls. 11 ff.

<sup>13</sup> *A.J.A.*, XLIV, 1940, p. 337.



those areas which they presented as excavated. This is true, too, of the "New Temple." We found it not only overgrown and buried under protective earth in parts supposedly "excavated" but also covered with masses of blocks from the superstructure obviously lying either in the position in which they had fallen in late antiquity or, occasionally, slightly removed from that position. In cleaning the larger part of the building (with the exception of the apse), we had to remove from the superstructure approximately five hundred blocks, many of them huge, half of them of marble, half of limestone. The building as it appeared at the end of the 1948 campaign is shown in Plate 4 (Fig. 6) and Plate 5 (Figs. 7, 8). Our exploration of it is far from complete in spite of this effort. But the readers of this report may be interested to learn such results as are already visible.

One is that this temple with its broad Doric porch and its pediment decorated with sculptures now in Vienna is a remodelled structure. In the now fully excavated pronaos, one can observe that the foundations of the marble stylobate (still largely *in situ*), built of lower courses than those of the other sides and including spoils of earlier structures, are hitched onto the northern ends of the lateral pronaos foundations. The latter, in turn, belong to an earlier building as does the southern foundation of the pronaos (Plate 5, Figs. 9, 10). On the outer foundations, too, it can be observed that the present width of the pronaos is the result of a broadening of an already extant building (Plate 6, Fig. 11). While we, too, date the Doric order and the pedimental sculptures of the "New Temple" in the second century B.C.,<sup>14</sup> we are not yet prepared to indicate a specific date for this earlier building which must be, at the latest, early Hellenistic. Nor can we yet state the exact extent and form of the earlier building. As to the façade of the late Hellenistic temple, indications are that the Austrian restoration with its two rows of prostyle columns<sup>15</sup> is incorrect. A pronaos of one row of six columns seems to have been preceded by an open platform.

In the interior of the building we found various new elements. While the Austrians had assumed the existence of an unpaved area in the nave, we ascertained the existence of a solid limestone foundation for a marble floor throughout this area (Plate 5, Figs. 7, 8). But in this foundation we discovered two sacrificial hearths: a smaller one in the forepart of the nave between the parapets (Plate 6, Fig. 12), and a larger one in the rear halfway between the southern end of the parapets and the bothros in the apse. These *escharai* are shallow rectangular pits<sup>16</sup> in the foundation framed by a border of upright limestones which, where preserved,<sup>17</sup> have been burned

<sup>14</sup> As does Schober, *Oesterr. Jahresh.*, XXIX, 1935, pp. 1 ff.

<sup>15</sup> Conze, *op. cit.*, I, p. 73, pl. 43; II, p. 29, figs. 6, 7.

<sup>16</sup> Outer dimensions of the smaller hearth: 1.00 m.  $\times$  1.10 m.; inner: 0.60 m.  $\times$  0.87 m. (Plate 6, Fig. 12). Outer dimensions of the larger hearth: 1.65 m.  $\times$  2.00 m.; inner *ca.* 1.33 m.  $\times$  1.68 m.

<sup>17</sup> A good deal of the frame of the northern eschara is preserved (Plate 6, Fig. 12). The southern eschara is badly destroyed, only a few fragments of the frame being *in situ* at the time



to yellowish or reddish hues as a result of long or often repeated exposure to fire. Such *escharai* having frames to support a metal grille are well known and have been discussed repeatedly in recent years.<sup>18</sup> But all the hitherto known examples of the type belong to the archaic age, in particular to the seventh century B.C., at which time they were especially common in Crete. Archaic examples have, however, recently been found on Lesbos<sup>19</sup> and, in the very immediate vicinity of Samothrace, in Thasos.<sup>20</sup> As yet, we have no indication that the two *escharai* of this very archaic type in the "New Temple" in Samothrace are earlier than the second century B.C. In any case, they persisted in use to the very end of paganism: an example of the tenacious preservation of very archaic rites in the Samothracian mysteries.

These two hearths in forepart and centre of the building point to a liturgical sequence of sacrificial rites which culminated, at the end, in libations to the underworld gods in the bothros in the apse.<sup>21</sup> These rites were probably witnessed by the community seated on benches in the lateral aisles running through the entire cella. Foundation spurs do exist at right angles to the lateral walls about as indicated in the Austrian plan.<sup>22</sup> They are too distant from each other to support pavement slabs which, throughout the building, invariably rested on a continuous substructure. On the other hand, fragments of straight marble benches of a type similar to theatre steps are preserved and it may be assumed that such benches, accessible from a narrow paved passage behind the parapets, were supported by these foundation spurs.

The interior moulded stucco decoration of the temple, many fallen fragments of

of our excavation, but its outline could be defined. The floor here is in part a natural rock which has been leveled off on the surface.

<sup>18</sup> Prinias: *Annuario*, I, 1914, pp. 33 ff.; Dreros: *B.C.H.*, LX, 1936, pp. 226 ff., where Marinatos lists a number of instances, some of them, however, questionable or of different type; Lato, *B.C.H.*, LXI, 1937, p. 474 (not mentioned, however, *B.C.H.*, LXII, 1938, pp. 383 ff.). For further examples see H. Payne, *Perachora*, I, Oxford, 1940, pp. 111 f. and W. Lamb, *B.S.A.*, XXXII, 1931-32, p. 47.

<sup>19</sup> Lamb, *loc. cit.*, pp. 46 f., pl. 19, fig. 4.

<sup>20</sup> Ch. Picard, *C.R.A.I.*, 1935, p. 486; *B.C.H.*, LVIII, 1934, p. 484; LIX, 1935, p. 273. The attribution of this archaic temple in Thasos to the archaic Herakleion now seems somewhat questionable (see Launey, *B.C.H.*, LXI, 1937, p. 381) and one may ask whether the archaic building with an *eschara* as well as the rotunda with a bothros does not belong to the mystery sanctuary of which an almost square telesterion is preserved.

<sup>21</sup> See Porphyry, *antr. nymph.*, 6: ἰδρύσαντο χθονίοις τε καὶ ἥρωσιν ἐσχάρας, ὑποχθονίοις δὲ βόθρους. This testimony (for this and other references to *escharai* see *RE*, s.v.) cannot be lightly discarded in view of the new discoveries in Samothrace. If *escharai* are dedicated to chthonic and heroic worship, as clearly distinguished from the cult of those who dwell in the underworld, it may well be that the two *escharai* in the "New Temple" were destined for sacrifices to some of the divinities worshipped in Samothrace, for example, the Kabeiroi, Kadmilos and the Mother, while the bothros was dedicated to the King and Queen of the Underworld (see below). The relationship of these "escharai" to what the Austrians assumed to be "bothroi" in the "Old Temple" (Conze, *op. cit.*, II, pp. 21 ff., pls. 4 ff.) cannot yet be defined.

<sup>22</sup> Conze, *op. cit.*, I, pl. 11.



which we gathered, was not uniformly red,<sup>23</sup> but had varying colors including red, white, black, yellow, and green. It was of that colorful Hellenistic type of decoration known as the First Pompeian Style. Though common in secular architecture of the Hellenistic period in Greece, such decoration appears here, for the first time outside Italy, in a monumental religious building. This decoration confirms a second century B.C. date for the final form of the "New Temple."

While the mass of antefixes found by the Austrians and probably belonging to the same age show an "artificially severe" style,<sup>24</sup> a beautiful piece, discovered by us (Plate 6, Fig. 13), shows slightly different dimensions<sup>25</sup> and a freshness of ornamentation which may indicate that it belonged to an earlier phase of the building.

It would be premature to suggest a specific rôle for this building within the mystery rites of Samothrace which, at least from the Hellenistic age on, seem to have been performed in progression through a series of monumental buildings.

We now may return once more to the northern section of the sanctuary. Here, our exploration beneath the Arsinoeion has furnished rich new material for the history of Samothrace and its mystery cult.

A full excavation of the circular area enclosed within the foundations of the rotunda of Arsinoe had been initiated before the war.<sup>26</sup> This work was virtually completed in 1948 by the removal of the fill inside the huge limestone foundation of this early Hellenistic building and by the uncovering of the earlier structures preserved there (Plate 1 and Plates 6-9, Figs. 14-23). For the sake of brevity in this preliminary report, it may be best to describe the chief results in the order of historical sequence rather than in the reversed sequence of strata discovered as we moved downward from the level previously reached.

In this region, the natural ground descends in an east-west direction towards the river bed which limits the main part of the sanctuary to the west. East of section J, rock emerges almost to the level of the euthynteria of the Arsinoeion. In the interior of this section, its crags stand up to the bottom of the third foundation course beneath the euthynteria level. Then it rapidly descends toward the river bed until, at its western side, the foundation of the Arsinoeion thus far laid bare has a height of ten courses (3.25 m., see section, Plate 7, Fig. 15).

On this steep slope early builders erected two successive structures, both of which originally extended beyond the area of the later rotunda (Plates 6-9, Figs. 14-17, 21). The first was a terrace supported by an impressive "Cyclopean" wall running from north to south and preserved to a length of about 10 m. and to an average height of 1 m. (Plates 7-8, Figs. 16, 17, 18). The northern section of this wall is built of huge

<sup>23</sup> *Ibid.*, I, p. 69, fig. 3.

<sup>24</sup> *Ibid.*, I, p. 67, pl. 31, fig. 1.

<sup>25</sup> Acc. No. 48.578. Ht.: 0.21 m.

<sup>26</sup> *A.J.A.*, XLIV, 1940, pp. 338 ff.

boulders smoothed off on one face and includes an enormous block 1.10 m. in height (Plate 8, Figs. 17, 18). The southern section shows slightly smaller and more irregular stonework and it may be a somewhat later extension. This terrace wall has a compact fill of field stone which, where removed, proved to be disappointingly sterile. But a few tiny fragments of crude pink pottery were extracted from the wall itself. They, as well as potsherds found in the vicinity (though mixed in later strata), suggest a prehistoric date in the late Bronze or early Iron Age<sup>27</sup> for the Cyclopean terrace.

At its present northern end, this terrace includes huge boulders of a colorful variety of rock not otherwise found in this region and evidently deposited here by natural forces long before any building began. One gigantic rock (Plate 8, Fig. 18) has a leveled off surface (1 m. in diameter) while its lower parts extend irregularly towards the west. At the northern end of this rock two smaller rocks are still preserved, seemingly the two upper steps of a crude stairway leading up to the flattened surface of the rock. Another boulder of the same variety as the big flattened rock has been tilted into an upright position to form a kind of parapet along this stairway (Plate 8, Fig. 19). On the western and southern sides of the flattened rock, a narrow channel reserved in the stone fill of the terrace accompanies its arched outline (Plate 1). These curious features and the fact that, as we shall presently see, the earliest Greek settlers selected this place for religious worship, point to a religious function for the structure. If this assumption is correct, a pre-Greek root of the complex Samothracian religion becomes visible here. In fact, the flattened rock with steps leading up to it recalls the "rock altars" of the Phrygian region. The channel beneath the rock could find its natural explanation as a libation channel connected with sacrifices.

The Phrygian rock altars are affiliated with the cult of the great mother goddess, Kybele.<sup>28</sup> Her name occurs persistently in ancient literary sources apropos of the origin and rites of the Samothracian mysteries. And while the Mother of the Samothracian mysteries, Axieros, was also identified with the Greek Demeter,<sup>29</sup> her image, enthroned and flanked by lions, appears on the reverse of later coins of Samothrace

<sup>27</sup> Though neither Mycenaean nor clearly Greek geometric potsherds have so far been found, we have fragments of ceramics with incised wave lines of varieties known from Troy VI-VII (Schliemann, *Atlas des antiquités Troyennes*, Leipzig, 1874, pl. 27; Dörpfeld, *Troja und Ilion*, Athens, 1902, pp. 294-295; H. Schmidt, *Heinrich Schliemanns Sammlung*, Berlin, 1902, p. 163); Larissa (Scheffold, *Larissa*, pl. 3, 11-12) and Lesbos (W. Lamb, *J.H.S.*, LII, 1932, pp. 4-5, 10, fig. 4); Acc. Nos. 39.120, 39.211, 39.315, 39.502, 39.1096; 48.7, 48.105a, b, c, 48.147.

<sup>28</sup> For relatively recent discussion, see Cook, *Zeus*, Cambridge, 1914, I, p. 134; K. Galling, *Der Altar in den Kulturen des Alten Orients*, Berlin, 1925, pp. 15 ff., and the excellent remarks of A. Goetze, *Kleinasien (Handb. d. Altertumswiss., III, I, 3)*, Leipzig, 1933, pp. 191 ff. The analogous situation of the famous sanctuary of Steunos on the slope over a river bed, with a narrow terrace, a sacred rock, a rock-cut altar with steps, and circular "bothroi" near by deserves mention, *Ath. Mitt.*, XXXVI, 1911, pp. 302 ff.

<sup>29</sup> For similar identifications elsewhere, see *RE*, s.v. Kybele, cols. 2257, 2270.

where she, the main deity of the mystery sanctuary, is coupled with an image on the obverse of Athena, patroness of the political community.<sup>80</sup> The Kabeiroi of Samothrace were often identified with the Korybantes of Kybele or the Kouretes of Rhea, while later popular belief identified them with the Hellenic Dioskouroi. And, in Samothrace, Hermes-Kadmilos was attached to this circle as, in the Phrygian cult, he so frequently appears as the companion of Kybele.<sup>81</sup> The ancient legends of Dardanos and the legendary connection of Samothrace with the Idean Great Mother thus seem to be rooted in the facts of religious history. It may also be mentioned that prehistoric potsherds found so far, alas, only included in later strata, show definite connection with the ceramics of the late Bronze and early Iron Ages of northwestern Asia Minor and Lesbos.<sup>82</sup>

The second major building period uncovered beneath the Arsinoeion is represented by what may be called the "orthostate structure." It extends over almost the entire area of the Arsinoeion, save for a smaller and a larger segment near its eastern and western periphery. This orthostate structure had already been partially uncovered in 1939 and it was immediately clear that it belonged to an extensive complex, other parts of which were found in the depths beneath the Sacristy and in the southern section of the Anaktoron.<sup>83</sup> It is now evident that it also extended southward beyond the area of the Arsinoeion. It, thus, covers an area of at least 30 m. north-south by 11 m. east-west. Its orientation follows and is defined by the Cyclopean terrace which is included in its eastern part. In the eastern section of the Arsinoeion this structure was laid out without other foundation on natural rock and the compact stone fill of the pre-Greek terrace. Elsewhere, foundations of roughly cut field stone were built to support the superstructure. They increase in depth and size of stones as the natural rock descends from east to west reaching a height of 1.42 m. at the western end. While the width of the foundation of the east-west cross wall is .65 m. that of the western foundation is .90 m. and it is not bound into the cross wall to add strength

<sup>80</sup> This seems to be the conclusion to be reached now in the light of most of the literary sources and of the new archaeological evidence. The sporadic occurrence of Athena and Zeus among the ancient efforts to interpret the "Great Gods" of Samothrace cannot be exploited as James Oliver did in his interpretation of the document published by us in *A.J.A.*, XLIII, 1939, p. 145 (*ibid.*, pp. 464 ff.). The sanctuary of Athena is well documented in inscriptions as the archives of the town and Zeus may well have had his cult there, too. On the other hand, Kybele and her entourage occur persistently in most of the *testimonia* regarding the Samothracian mystery cult.

<sup>81</sup> In the sanctuary, we know the association of Hermes-Kadmilos and the Kabeiroi from the fact that two statues of nude young men, undoubtedly the latter, stood outside the doors of the adyton in the Anaktoron where we found the cult regulation with the kerykeion of Hermes between the two snakes of the Dioskouroi (*A.J.A.*, XLIII, 1939, p. 138, fig. 6). Compare the ring, stolen during the war, incised with the two snakes and the stars of the Dioskouroi-Kabeiroi (*A.J.A.*, XLIV, 1940, p. 355, fig. 39).

<sup>82</sup> See above, p. 8, note 27.

<sup>83</sup> *A.J.A.*, XLIV, 1940, pp. 350 ff., figs. 3, 15, 16, 22, 30, 31.



to its double function as a foundation and a terrace supporting the high earth fill in the interior of the precinct.

On these foundations rose a carefully built dado of yellow tufa blocks (width .62 m.), part of which is preserved in the Arsinoeion, part beneath the Sacristy.<sup>34</sup> The dado was composed of a stercobate of floor slabs (averaging .20 m. high), orthostates (.37 m. high), with compact stone fill and cross spurs, and cover slabs (.20 m. high). The upper walls were evidently of mud brick.

The structure consisted of a large northern part separated from a southern section by the cross wall which traverses the centre of the Arsinoeion. In addition to this subdivision, there are differences of level. The main part of the cross wall in the Arsinoeion is built at a level of 1.40 m. beneath the euthynteria, as was the western wall only the foundations of which are preserved. In the eastern part of the structure, the level ascended to the top of the prehistoric terrace, so that here the floor slabs continue the level of the (now lost) cover slabs of the lower orthostate dado. Furthermore, the construction of the corner between the orthostates of the cross wall and the northern section of the Cyclopean wall (Plate 8, Fig. 17) indicate that an orthostate facing turned around here along the upper end of the old Cyclopean wall which, thus, probably also supported a mud brick wall in this period.<sup>35</sup> It, therefore, seems that the builders of the orthostate structure included the northern section of the prehistoric terrace containing the rock altar in an "adyton" on a higher level, in the southeastern corner of the large northern section. In the southern section, on the other hand, indications are that the old terrace wall was now buried beneath a fill sloping down from east to west. The orthostates on the western face of the cross wall near the Cyclopean wall are not all finished and they are irregularly placed so that they project over the floor slabs that support them. Thus, they cannot have been visible at this level (Plate 8, Fig. 20).

The structure as a whole cannot have been a building with a roof but evidently was in the nature of a large double precinct, the northern part of which included an adyton containing the old rock altar on a higher level, while the southern part gently rose in ground level. On the preserved floor slabs of the cross wall, there is no indication of a passage from one section into the other and it seems that both sections were accessible only through individual entrances from either the western, or the northern and southern sides.

Though the later history of this area and the activity of the Arsinoeion builders has by and large disturbed its original stratification, we were able to secure copious

<sup>34</sup> *Ibid.*, figs. 22 and 30. Now partly destroyed, see above, p. 2, note 4. Dr. Frederick Pough of the American Museum of Natural History was kind enough to identify a sample of this material as tufa.

<sup>35</sup> We had already observed that corner, without yet knowing of the existence of the Cyclopean wall, in 1939: *ibid.*, p. 350.



ceramic material along the foundations of the orthostate structure and thus roughly to define its date. Its fill contained a mixture of crude native ceramics and Greek black-glazed pottery which, though undecorated, is of extremely fine quality and almost "egg-shell" thinness. The closest analogies to this pottery, so far, seem to have been found in an early archaic deposit in Lindos on Rhodes.<sup>36</sup> A date in the seventh century therefore seems indicated for this orthostate structure.<sup>37</sup>

No Greek relic certainly earlier than the seventh century has thus far been found in Samothrace while, in addition to the ceramics from the foundation of the orthostate structure, we have other sporadic Greek finds from that period. The old assumption that Samothrace did not receive Greek settlers before the seventh century seems to prove correct. These settlers, if we interpret the picture obtained so far correctly, mingled peacefully with the natives and carried on their old worship of the Mother and her acolytes.

They built a double precinct, the northern section of which was given over to her cult, the southern being reserved for other divinities. This double precinct has one striking analogy in the history of Greek religious architecture: the twin precinct which the Greek settlers in Naukratis erected in the same age to Hera of Samos and Apollo of Miletus, a precinct surrounded by mud brick walls, originally without temples, provided with separate entrances and lacking interior communication.<sup>38</sup>

In the open area of the northern precinct a large space was provided for gatherings and rites in honor of the native gods. These rites included sacrifices, the traces of which we discovered in an ash layer near the western wall opposite the rock altar in the "adyton." The very existence of this adyton may indicate that some secrecy and a beginning of mystery rites existed at least by this period.

But in the southern temenos, too, there is evidence of the performance of religious rites. Here we found, almost miraculously preserved, a sacrificial pit looking like and being built in the manner of a primitive oven of small stones and clayish earth. It is in the shape of a tall beehive having an interior diameter of 0.50 m. and a height of 2.50 m. (Plate 9, Fig. 21). Its upper end is level with the floor slabs of the orthostate

<sup>36</sup> C. S. Blinkenberg, *Lindos*, Berlin, 1931, pp. 289 ff., pl. 47, when discussing this deposit felt reminded of M M III "egg-shell" ware as we did when we found our potsherds. The forms of skyphoi and handles also seem to be closely related to those of the Rhodian finds which Blinkenberg attributed to local manufacture. The latter, however, seem to lack the decoration under the foot of a circle or several circles with a central dot that is commonly found in Samothrace. The Samothracian ware is not Corinthian, nor can I at this time name another likely centre of production.

<sup>37</sup> The orthostate dado shows close structural analogy to that of the seventh-century temple of Neandria: R. Koldewey, *Neandria (Winkelmannsfest, Berlin, Programm, No. 51)*, Berlin, 1891, p. 27, fig. 56.

<sup>38</sup> W. Flinders Petrie, *Naukratis*, I, London, 1886, pl. 41; II, London, 1888, pl. 4; H. Prinz, *Funde aus Naukratis (Klio, Beiheft 7)*, Leipzig, 1908, pl. 1; *A.B.S.A.*, V, p. 43. The Naukratis precincts are much bigger, their walls thicker, and they lack an orthostate dado.

wall and it had a narrow open vertical shaft on its northern periphery, possibly once framed by wooden boards, for pouring down libations to a "sacred stone" found at the lower end of this shaft with a little piece of native marble pressed against it (Plate 9, Fig. 22). The interior of this bothros contained loose black earth but near its mouth were found animal bones, exclusively of sheep.<sup>39</sup> Bothroi containing sacred stones are a familiar feature of later Samothracian rites.<sup>40</sup> But the primitive form of this seventh-century bothros into which the blood of sacrificial animals was evidently poured down to the nether world reminds us of Homer's *Nekyia* and of Odysseus killing a ram over a pit at the entrance to the underworld.<sup>41</sup> Furthermore, the Samothracian cycle of gods included a king and queen of the underworld, Axiokersos and Axiokersa, representatives of a religious sphere quite different from that of the Queen of the Rocks and her entourage.<sup>42</sup> We are, therefore, drawn to the conclusion that the southern section of the archaic precinct belonged to these underworld gods who, in a loose fusion with the Great Mother of the Rocks, the Kabeiroi and Kadmilos, were worshipped in separate, if successive, rites in the seventh century B.C. in Samothrace. Gradually, out of varying religious concepts and rites, the complexity of a Greek mystery religion seems to develop here into what must have already been an elaborate theology a century later when, around 500 B.C., the great initiation hall, the Anaktoron, was built over the northern part of the original northern temenos.

When the "orthostate structure" was first discovered, we dated it earlier than the archaic age because it was buried deep beneath the late archaic Sacristy being separated from its foundation by two or possibly three intermediate building periods.<sup>43</sup> While our excavation in 1948 changed the absolute chronology of the orthostate structure, it also showed that the double precinct did not have a long life. Whether forces of nature or men destroyed it, there followed an interval to which a crude foundation built obliquely over the western foundation of the old double precinct in section A of the Arsinoeion (Plate 9, Fig. 21) evidently belongs. This foundation corresponds in orientation to the last pre-Anaktoron phase in the Sacristy (A) and may belong to the same period of the sixth century B.C. It supported a mud brick wall which must still have been upright when the Arsinoeion was built, for its débris

<sup>39</sup> We are indebted to Dr. Edwin Colbert of the American Museum of Natural History for generously giving of his time to identify the bone fragments.

<sup>40</sup> *A.J.A.*, XLIV, 1940, p. 334. In the later bothros of the Anaktoron (*ibid.*, fig. 11), the sacred stone was a reused roughly polygonal, possibly, pre-historic block and the same is true of the sacred stone in the pit under the Arsinoeion.

<sup>41</sup> For a probable later reference to the Homeric *Nekyia* as symbolizing the eschatological ideas of the Samothracian religion in a fifth-century monument and for related testimonies see *Hesperia*, XII, 1943, pp. 123 ff.

<sup>42</sup> The key passage for the Samothracian Pantheon remains the Schol. Laurent. to Apollonios Rhodios, *Argonautica*, I, 917-918. On "Orphic" gold plaques Persephone is called *Κυβελία Κούρη* (*RE*, s. v. *Kybele*, col. 2270).

<sup>43</sup> *A.J.A.*, XLIV, 1940, pp. 332, 349 ff.

was found washed down in the earth fill of the rotunda and partly adhering to its foundation. Thus, not far from the seventh-century bothros, a small structure or new enclosure may have been built around it in the sixth century, probably continuing in existence throughout the following two or three centuries.

In the same way, the cult in the northern temenos was continued. Here, over the above-mentioned ash layer <sup>44</sup> of the early archaic precinct, we uncovered a crude rectangular stone foundation (Plate 9, Fig. 23), again, in a different orientation which, in turn, corresponds to an archaic phase (B) of the Sacristy. This foundation belonged to an altar which stood on a level at least 0.65 m. above the floor of the early temenos and, again, continued to be used down to the period of the Arsinoeion. It was around the upper edge of the preserved foundation of this altar that we had discovered, in 1939, a "bone deposit" of sacrificial relics including pottery dating from the archaic and classical periods.<sup>45</sup>

Thus, it is clear that, after the destruction of the seventh-century double precinct, cult continued in this region, which may have been an open grove between the initiation hall and Sacristy at the north and the terrace of the "Old Temple" at the south.

When the Arsinoeion was projected in the early third century B.C., its builders took care to include within its circumference this old ritual area—the bothros, as yet undestroyed, the altar, and the "rock throne." It will be noted that the altar foundations recorded by us at the northeastern interior periphery of the Arsinoeion <sup>46</sup> show the same orientation as the archaic-classical altar of the bone deposit (situated at a slight distance to the southwest of it) which was now buried in the fill. It will also be remarked that the circle of the Arsinoeion was laid out in such a manner as just to include the old sacred rock, though it, too, was now buried in the foundation. This wish to include the ancient token of divine power and not to build on top of it or to exclude it may account for the position of the Arsinoeion which entailed the transfer of the late archaic Sacristy to its present awkward position.<sup>47</sup>

The earth fill removed from the foundations of the seventh-century twin-precinct, the early third-century fill of the Arsinoeion, and the second century fill from the pronaos of the "New Temple" contained a wealth of material. To it are to be added finds from the late Hellenistic fill of the collapsed terrace wall to the east of the Arsinoeion and others of a more sporadic nature. They all combine to advance our knowledge in many directions. Only major results and individual items of peculiar interest can be mentioned here.

<sup>44</sup> Above, p. 11.

<sup>45</sup> *A.J.A.*, XLIV, 1940, pp. 351 f.

<sup>46</sup> *Ibid.*, pp. 339 f., fig. 16. Independently and without knowledge of our discovery, F. Robert, *Thyméle*, Paris, 1939, pp. 358 ff., has assigned the Arsinoeion to this sacrificial use. It cannot, however, be said with certainty that this was its only or even primary function, inasmuch as various liturgical actions including sacrifices seem to have taken place in all major Samothracian buildings.

<sup>47</sup> *Ibid.*, p. 349.



A few such items concern aspects of building activity. Though the Anaktoron was stuccoed in white on outer <sup>48</sup> and inner wall faces, it seems that the prevailing color of the stucco in the earlier periods of other buildings in Samothrace was red, a color possibly not without symbolical meaning. Fragments of fine red marble stucco were found profusely in the fill of the Arsinoeion and must belong, at the latest, to the fourth century B.C. An even finer variety of red stucco was found in the fill around the foundation of the twin precinct, dating thus from the seventh century or possibly from the pre-Greek period.

Several baked bricks <sup>49</sup> of small dimensions undoubtedly used in some minor structure offer a puzzling problem (Plate 10, Fig. 24a). Some of them were extracted from undisturbed Arsinoeion fill and therefore date from the classical period or, at the latest, from the very beginning of the Hellenistic age. They are certainly of Greek manufacture since several examples show incised Greek letters:  $\Lambda$  and  $\chi$ . We are not aware of any analogy to this discovery of Greek and even pre-Hellenistic usage of sizable baked bricks for structural purposes.<sup>50</sup>

The Arsinoeion fill also yielded several fragments of a clay aqueduct destroyed when the Arsinoeion was built or earlier. The pipes were originally held in place by perforated stone blocks (Plate 10, Fig. 24)<sup>51</sup> through which they passed, a peculiar Samothracian scheme which we had already encountered in 1938 in a later aqueduct in the lower town.<sup>52</sup> This pre-Hellenistic aqueduct may have served a ritual purpose in the sanctuary.

The prevalence of nocturnal ceremonies in the mysteries of Samothrace is further born out by the increasing number of lamps.<sup>53</sup> Some of the more or less fragmentary examples discovered this season in the fill of the Arsinoeion belong to the interesting group of archaic Greek marble lamps recently discussed by Beazley.<sup>54</sup> To the one discovered in 1939, we may now add three more examples. One, almost completely

<sup>48</sup> White stucco was preserved on parts of the outer face of the eastern wall in the peristasis in 1948. For the interior, see *A.J.A.*, XLIII, 1939, p. 135, and XLIV, 1940, pp. 332 ff., figs. 4-5.

<sup>49</sup> Two fragments of such bricks of 0.085 m. thickness, one with an incised  $\Lambda$ , the other with a  $\chi$ , and a third having a preserved length of 0.22 m., a width of 0.18 m. and a thickness of 0.06 m., also incised with a  $\Lambda$ , were discovered on the surface in 1939 (Acc. Nos. 39.32a-b, 39.210 = Plate 10, Fig. 24a). Another brick found on the surface in 1948 (Acc. No. 48.99) has a preserved length of 0.18 m., a width of 0.10 m. and a thickness of 0.087 m. The specimen found in the Arsinoeion fill in 1948 (Acc. No. 48.85) measures 0.24 m.  $\times$  0.126 m.  $\times$  0.087 m.

<sup>50</sup> Professor Robinson published a base faced with evidently very small pieces of burnt clay in *Excavations at Olynthus*, XII, Baltimore, 1946, p. 156, pl. 130. No measurements are given.

<sup>51</sup> Acc. Nos. 48.196, 48.442. Inner diam. of pipe 0.102 m. The upper half of the perforated stone is broken away in the fragment from the Arsinoeion fill.

<sup>52</sup> *A.J.A.*, XLIII, 1939, p. 142, fig. 10.

<sup>53</sup> See *A.J.A.*, XLIV, 1940, pp. 341 and 348.

<sup>54</sup> *J.H.S.*, LX, 1940, pp. 22 f. Mrs. Bober has studied the new marble lamps from Samothrace in detail and her comment has been quoted in the text.



preserved, belongs to the seventh-century type (Plate 10, Fig. 25).<sup>55</sup> "Undecorated, it is furnished with a single spout which is bridged by a thin continuation of the inner edge of its shallow pan. The fact that this pan is not compartmented, combined with the straightforward simplicity of form and the lack of any plastic decoration or even a moulded rim, indicates that the lamp must antedate Beazley's group of Daedalic style, perhaps belonging still to the first half of the seventh century." (Bober).<sup>56</sup>

A second marble lamp found this year is less well preserved (Plate 10, Fig. 26).<sup>57</sup> It shows the more common sixth-century type with a rounded bowl. Like the lamp found in 1939,<sup>58</sup> it was double spouted and has a clearly developed shallow base. Parts of a dedicatory inscription are preserved on the upper rim ΘΕ(οι)Σ spaced decoratively around one of the spouts, the initial letter being close to the other. A small fragment of a fourth marble lamp<sup>59</sup> of the same type shows one letter of a similar inscription, an Ε near a spout.

Though presumably dedicated by individuals, these marble lamps were undoubtedly used in the community service.<sup>60</sup> Since none of them shows the customary devices for suspension commonly found on archaic stone lamps, one may suggest that they were carried in processions by functionaries of the rites.

The great number of clay lamps of the archaic and classical periods found, for the most part, in the fill of the Arsinoeion were undoubtedly used by the mystae and later dedicated to the gods. Here, too, we find two-spouted as well as single-spouted examples. And repeatedly the votary has incised a ⊙ on the spout—as often in the dedication of vases in Samothrace, the initial letter stands as an even more cryptic symbol of the unnamed "Gods" (Plate 11, Fig. 29). Of particular interest are several fragments of unglazed fifth-century lamps of identical type and size (Plate 10, Fig. 27).<sup>61</sup> Before firing, they were stamped by the manufacturer with an Ε framed by a circle containing a dot in the centre: this is a monogram ⊙Ε (for Θεοῖς) and,

<sup>55</sup> Acc. No. 48.400. Dia. 0.14 m. with spout 0.165 m.; ht.: 0.068 m.: base to floor of well 0.049 m.; dia. of well 0.092 m. Island marble.

<sup>56</sup> In the Thasos museum, there is a green stone lamp (No. 10) not listed by Beazley and seemingly unpublished. It has straight walls of the "daedalic" type, is circular without inner compartments, and has six projections, one with hole for suspension, two with spouts.

<sup>57</sup> Acc. No. 48.137. Dia. 0.178 m.; ht. 0.072 m.; flat base with a dia. of 0.111 m.; w. of rim 0.02 m. Thasian marble.

<sup>58</sup> *A.J.A.*, XLIV, 1940, p. 341, fig. 19. Beazley, *op. cit.*, p. 42, seemed to doubt the restoration of the double spout. Though the published photographs may have left some doubt, actually parts of the second spout are preserved and, naturally, formed the basis of the plaster restoration.

<sup>59</sup> Acc. No. 48.360. W. of rim 0.019 m. Thasian marble.

<sup>60</sup> Mrs. Bober calls attention to the fact that several of Beazley's examples of marble lamps come from the Sanctuary of Demeter Malophoros in Selinus.

<sup>61</sup> Two spouts from the Arsinoeion fill: Acc. No. 48.516, 48.517. Pres. length 0.06 m.-0.08 m. Pinkish clay with fine slip. Traces of burning on nozzle. The dot of the theta was first recognized by Mr. Woods. A third fragment of the same kind had already been found before the war: Acc. No. 39.1075.

as far as I know, the earliest true monogram preserved among known Greek inscriptions.<sup>62</sup> This usage shows the cryptic symbolism that remained inherent in monograms through later ages. Another interesting fact is revealed by these finds. By the fifth century B.C., Samothrace had its own ceramic manufacture, a document of its economic life stimulated by a cult which, as Herodotus and Aristophanes attest, must have already been extremely popular in the Greek world.

In this connection, a curious group of later ceramic products, a quantity of which was discovered in the pronaos fill of the "New Temple"<sup>63</sup> may be mentioned here. They are fragments of coarse bowls of shallow conical shape and, undoubtedly, of local manufacture. Inasmuch as none of them was found in the fill of the Arsinoeion, they evidently represent local industry of the Hellenistic age antedating the second half of the second century B.C. Invariably they show the magical ☉ incised by the potter in the interior centre before firing (Plate 10, Fig. 28).

To the Hellenistic period, too, belongs another type of ceramic inscription already mentioned in a previous report<sup>64</sup> as rather puzzling. It consists of sketchily incised letters of all types, often later scratched out by some scrawl, on coarse potsherds of what seem to have been chiefly clay dishes. We now have hundreds of these fragments. And they are always broken in such a way as to indicate that they were incised and often scratched out when the dish was still unbroken, as well as that a ritual breaking up of these dishes took place after usage. Again, none of this type of graffito was found in the Arsinoeion fill, but numerous examples occur in the late Hellenistic fills of the pronaos of the "New Temple" and the collapsed terrace wall to the east of the Arsinoeion.<sup>65</sup> For the graffiti scratched into these dishes in the course of ritual usage (owner's marks?), I have no safe explanation to offer.

Other ceramic inscriptions present interesting problems. Apart from the commonly incised ☉ (Plate 11, Fig. 29),<sup>66</sup> ☉E or other fragments pointing to Θεοῖς which occur on various types of small vases, we have other single letters or fragmentary graffiti that one is tempted to relate to more specific names. The single letter K is incised on pottery a number of times and may stand for Καβείροις or Καδμίλω as the

<sup>62</sup> Ligatures, which of course occur earlier, are not monograms. The earliest monograms I have been able to find are Hellenistic: Mason's marks with the monogram of King Attalos II and stamps on roof tiles and amphora handles in Pergamon (*Ath. Mitt.*, XXVII, 1902, pp. 144 f., 149); Hellenistic mason's marks in Sicily (G. Sâflund, in *Scritti in onore di Bartholomeo Nogara*, Vatican City, 1937, pp. 409 ff.), as well as monograms appearing on Hellenistic coins.

<sup>63</sup> In one place here there were found fragments of not less than fifty-nine such bowls.

<sup>64</sup> *A.J.A.*, XLIV, 1940, p. 354. As a re-examination of sherds and records has revealed, coarse fragments with individual letters—quite carefully incised and different from the group discussed here—occur in pre-Hellenistic layers, but the quick sketchiness of the mostly large signs and the scratching out mentioned above are found invariably only on rather poorly fired Hellenistic fragments.

<sup>65</sup> See above, p. 4.

<sup>66</sup> Fig. 29, Acc. Nos. 48.223-225. Compare *A.J.A.*, XLIV, 1940, pp. 341, 354, fig. 17.

beginning of such a dedication KA is preserved incised upside down on the lower end of an archaic unglazed amphora.<sup>67</sup> A single A also occurs repeatedly and one may suggest a connection with Axieros, Axiokersos or Axiokersa. Under the foot of a glazed and stamped late fifth-century vessel found this year, one reads ΠAI, which sounds like an invocation to the παῖς well-known from the Kabeirion near Thebes (Plate 13, Fig. 32).<sup>68</sup> But given the fact that the Kabirs in Samothrace, as brothers, are invariably identified with the Dioskouroi, Korybantes, etc., we hesitate to draw too rash a conclusion from one single document of this kind.

Under the foot of an archaic bowl found in the Arsinoeion fill<sup>69</sup> one reads ΥΣΤΗ(μύστης ?) while in the interior of a fluted fourth-century kantharos another connection with mystae may be indicated by the preserved three letters . . . ΙΜΥ(στη?).<sup>70</sup>

Even more puzzling is a graffito on a big archaic vase of a type of which other fragments also exist (Plate 11, Fig. 30).<sup>71</sup> The form is that of a deep bowl on a low foot, with two heavy horizontal handles beneath a rounded lip. The inside is glazed, the outside decorated with one glazed stripe. Exactly this type of vase,<sup>72</sup> filled with fruit or cakes, is represented in a cult scene on a fifth-century Attic kylix (Plate 11, Fig. 31) the opposite side of which shows a sacrifice on an eschara.<sup>73</sup> Our archaic vase has incised upside down in large letters the completely preserved graffito ΔΙΝ as it would be scratched by a person bending over the large vessel. The same three letters are incised on another large unglazed potsherd found in the Arsinoeion fill<sup>74</sup> and thus certainly pre-Hellenistic, too. This is neither a Greek word nor a Greek name and hardly an abbreviation of either. Given the literary tradition that a "barbarian" language was liturgically used in the Samothracian cult, we may have a however

<sup>67</sup> Acc. No. 48.321, from the Arsinoeion fill. It should be noted that the same abbreviations K and KA occur not infrequently in the Kabeirion in Thebes where the meaning Καβείρω is certain: P. Wolters and G. Bruhns, *Das Kabirenheiligtum bei Theben*, I, Berlin, 1940, pp. 68 f., No. 286, 74, No. 337, pp. 38 f., Nos. 27, 31, 67, No. 289, 74, Nos. 334-336, 75, Nos. 341-343 (KA). Once ΘΕ (for Θεῶν) occurs there: *ibid.*, p. 76, No. 356.

<sup>68</sup> Acc. No. 48.224, from the Arsinoeion fill (*Ibid.*, pp. 20 ff.). It may well be that a Theban worshipper came to Samothrace and invoked the Pais of his native sanctuary. On the other hand, one occasionally finds reference in Thebes to the Samothracian Kadmilos who is not at home there: *ibid.*, p. 75, No. 344.

<sup>69</sup> Acc. No. 48.505.

<sup>70</sup> Acc. No. 48.241.

<sup>71</sup> Acc. No. 48.476. The restoration has been made without a flaring foot but fragments of such a foot are preserved. Dia. 0.43 m. Fragments of at least three more vessels of this type have been found.

<sup>72</sup> For a geometric forerunner, see A. Furtwängler, *Aegina*, II, Munich, 1906, p. 120, no. 47, p. 445, and for a seventh-century type: *Annuario*, X-XII, 1927/1929, p. 161, fig. 172, p. 480. Later Attic types: *Hesperia*, IV, 1935, pp. 511 ff.; V, 1936, pp. 342 ff.; XV, 1946, pl. 66, no. 305.

<sup>73</sup> About 470 B.C. Oxford, *J.H.S.*, XXXII, 1912, pl. 9: *C. V. Oxford*, 1, pp. 6 ff. Beazley calls the vase a "large kotyle" (but the testimonia seem to indicate that a kotyle is always small, see *RE*, s.v.) and thinks of the Apaturia for the rites represented.

<sup>74</sup> Acc. No. 48.670.



modest document of this language here. If that language was Thracian, it would be possible to connect the word ΔΙΝ with a well-known Thracian root represented in Samothrace in Hellenized form in the *nomen proprium* Δίνων.<sup>75</sup>

The mass of accumulated ceramics from various strata allow us to ascertain now that in all periods from the archaic through the Hellenistic age clay vessels were ritually used by the worshippers and afterwards dedicated or broken up and dumped in the sanctuary. In all periods, too, the mystae evidently had a lamp, a drinking vessel, and an eating dish. It is evident that drinking and participation in meals were an integral part of this as of other mystery cults, and that in Samothrace these rites go back to the archaic beginnings of the Greek cult.

The vessels may be coarse or glazed. And to our dismay, they generally are entirely without decoration, black-figured, red-figured or other decorated ware occurring only in very few fragments. Stamped vases occur from the late fifth century on, as does fluted ware in the fourth century. But it looks as if there had been a religious law preventing the use of decorated vases. Under the circumstances, and in view of the above established fact of local manufacture for the worshippers, it may well be that many of the glazed products as well as the unglazed were locally made. Shapes change over the several periods. The drinking vessels of the archaic age were mostly skyphoi, though kantharoi<sup>76</sup> (Plate 13, Fig. 33)<sup>77</sup> which prevail in the fifth and fourth centuries do occur. The early archaic time used for food deeper and larger one- or two-handled bowls or flat dishes, the late archaic and classical periods shallow bowls<sup>78</sup> and—possibly indicative of some of the food consumed—fishplates with a depression in the centre. In the Hellenistic age, we find flat coarse dishes and the previously mentioned conical bowls which may have been used for liquids. In the Roman era—for which we have no stratified material—glass vessels may have been commonly used.<sup>79</sup>

While the excavation in both the Arsinoeion and the "New Temple" yielded only minor fragments of sculpture, a half life-sized head of a woman (Plate 12, Fig. 35)<sup>80</sup> found on the surface near the Arsinoeion by Mrs. Dusenbery deserves to be mentioned. Worked in the extremely delicate Thasian marble that from the late archaic

<sup>75</sup> See W. Tomascheck, *Sitzungsb. Ak. Wien* (Phil.-Hist. Kl.), CXXX, 1894, pp. 23 f., 34; Tac., *Ann.* IV, 15 (*Prosop. Imp. Romani*, II, 13, No. 77). Among the twenty-three items listed in *RE* as having the root *din* there are only ten for which Thracian-Illyrian or Phrygian connection is not evident. Dinon, a magistrate in Samothrace, *I.G.*, XII, 8, No. 188.

<sup>76</sup> Black-glazed and undecorated kantharoi prevail in the Kabeirion in Thebes in this period, too, and commonly have dedicatory inscriptions (Wolters-Bruhns, *op. cit.*). In that sanctuary, however, there is a notable absence of dishes, bowls, and lamps.

<sup>77</sup> 48.300 from the seventh-century fill of the orthostate structure. Compare Furtwängler, *op. cit.*, pl. 127, fig. 22; Dugas, *Vases de l'Héraion (Expl. arch. de Délos, X)*, Paris, 1928, pl. 20, 119/120; also similar bucchero forms: *A.B.S.A.*, XXXII, pl. 20; *B.C.H.*, LVII, 1933, p. 302.

<sup>78</sup> For phialae allegedly dedicated by the Argonauts in Samothrace, Diodorus, IV, 49, 8.

<sup>79</sup> Surface fragments of glassware are commonly found.

<sup>80</sup> Acc. No. 48.289. Ht.: 0.153 m.

age on is almost exclusively used for buildings and sculptures in Samothrace, it is badly corroded. Yet even in its present state, it exhibits some of the charm of a fourth century B.C. Greek original of Skopasian style. This stylistic character is not without interest in Samothrace given Pliny's reference<sup>81</sup> to a group of Aphrodite and Pothos in Samothrace made by Skopas, a cult image worshipped by the Samothracians with "most holy rites"—whether in the Sanctuary of the Great Gods or elsewhere, we cannot say.

If this head is one more illustration of the thorough Hellenization of Samothrace in the three centuries after the Greek settlers had begun to transform the "barbarian" native cult into a Greek mystery religion, another incidental discovery, this time of a minor object, shows the continued affiliation of the sanctuary with the but superficially Hellenized Thracian and Macedonian peoples, an affiliation borne out, too, by epigraphical documents containing the names of worshippers who came to Samothrace. I refer to the fragmentary bronze fibula reproduced in Plate 13, Fig. 34.<sup>82</sup>

"The bow of this fibula is strongly arched and flat in section, swelling at the foot to form a roughly triangular catch-plate. At the head it is completed by a horizontal cross-piece designed to cover the spring of the missing pin; the hinge for the attachment of these separately-made movable parts is preserved. An unusual feature is the addition of an independent ring<sup>83</sup> encircling the bow, surmounted by a crudely-fashioned bird (duck?) which recalls the use of such elements on Geometric fibulae of the islands.<sup>84</sup> As yet, however, no precise analogies for this ornamental ring have come to hand.

"Since fibulae utilizing a bilateral spring-coil derive from late Iron Age T-fibulae, our example cannot antedate the end of the fifth century B.C.<sup>85</sup> Indeed, in the fully-developed cross-bow and hinge it more nearly approaches early Roman fibula types.<sup>86</sup> But, on the basis of close similarities between the long, elegant curve of the bow and La Tene III fibulae showing a like shape, often ornamented with small ring-like "wings" on the summit,<sup>87</sup> our *περόνη* may well belong to the first century B.C." (Bober).

Outside the sanctuary, a second Hellenistic cemetery<sup>88</sup> was accidentally discovered just to the south of the modern village of Palaeopolis that sprawls along its

<sup>81</sup> *N.H.*, XXXVI, 25.

<sup>82</sup> L.: 0.052 m.; ht.: 0.024 m.; width of cross bow 0.024 m. Found in the fill of the peristasis east of the Anaktoron.

<sup>83</sup> Dia. 0.015 m.; ht. of bird: 0.009 m.

<sup>84</sup> Cf. Blinkenberg, *Fibules grecques et orientales*, Copenhagen, 1926, p. 196, fig. 219.

<sup>85</sup> Von Netoliczka, *RE*, III, Suppl., col. 516.

<sup>86</sup> Smith, *Guide to Greek and Roman Life*,<sup>2</sup> British Museum, 1920, indicates that all types revealing a cross-bow sheath and separately attached spring-coil with hinge for the pin are Roman in date, representing an evolution from La Tene prototypes.

<sup>87</sup> Cf. Dechelette, *Manuel*, IV, p. 763, fig. 537, Nos. 9-10.

<sup>88</sup> Compare *A.J.A.*, XLIII, 1939, p. 144.

western periphery. Shortly before our arrival, natives working on the mule path leading from Palaeopolis to the main village of the island had discovered tombs, one of which contained a marble cinerary urn in the shape of a chest (Plate 13, Fig. 36),<sup>89</sup> a rare type known sporadically from archaic tombs in Thera and a Hellenistic (?) example from Egypt.<sup>90</sup> A search, made on the suggestion and under the supervision of Mr. Kallipolitis, led us to uncover a well preserved tomb (Plate 13, Fig. 37). It was covered by two layers of huge curved tiles—evidently manufactured for this very purpose. To our disappointment this tomb, though preserved intact, contained neither a skeleton nor any objects. It was clearly a cenotaph. But around it we found fragments of terracotta figurines indicative of a Hellenistic date for the cemetery.

During our campaign another sporadic discovery, discussed by Mr. Downey in the following note, was made by peasants living in the southwestern part of the island. It testifies to the flourishing state of Samothrace throughout the early Byzantine age. This discovery of a Byzantine public bath in a village remote from the town illustrates the long continuation of a standard of living inherited from the Greek tradition which had established itself 1200 years earlier and for many centuries, between the archaic Greek and the Christian era, had made Samothrace one of the most conspicuous centres of the religious life of the ancient world.

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<sup>89</sup> Acc. No. 48.1. Ht. 0.21 m.; length 0.56 m., width 0.37 m.

<sup>90</sup> H. Dragendorff, *Theraeische Graeber* (Thera, II), Berlin, 1903, p. 56, fig. 190; p. 28, fig. 74 (seventh century B.C.). D. V. Denon, *Voyage dans la basse et la haute Egypte*, Paris, 1802, pl. 4.



## NOTE ON A SAMOTHRACIAN INSCRIPTION

(PLATE 14)

FRAGMENTARY building inscription of Thasian marble, complete at top and bottom (both upper and lower moldings being preserved) but broken at each side. Accession number 48.286.

Height, 0.372 m.; preserved width, about 0.61 m.; thickness, 0.055 m. to 0.07 m., increasing from top to bottom. Height of letters, 0.035 m. to 0.04 m.

Edited from a squeeze and a field drawing.<sup>1</sup>

The circumstances of the discovery of the inscription are recorded in the expedition Diary of July 18, 1948: "The members of the expedition went to the village of Halonia, half an hour SSW of Chora where Constantinos Kales had informed us that he had found on his property the ruins of a building including marble blocks and an inscription. . . . The few fragments of the building in a vineyard revealed that it was a concrete structure. A marble pillar with two half-columns of the type used in Byzantine windows had been found and was measured and photographed. The inscription, of Byzantine character, was brought to the Museum."

- 1   [ . . . ] τὸ λοετρόν [ . . . ]  
     [ . . . θεομη]νεία πρὸ ἐτῶν β' [ . . . ]  
     [ . . . ἀ]νανεούτε ἐντ[υχῶς . . . ]  
4   [ . . . ἐπὶ Ἰου]στινιανοῦ ἔτου[ς . . . ]

. . . the bath . . . (destroyed by an earthquake [?]) two years previously . . . was restored with good fortune . . . in the time of Justinian in the year . . .

Line 1. The form λοετρόν for λουτρόν is found both in Byzantine literature<sup>2</sup> and in an undated inscription in the bath at Aphrodisias in Caria.<sup>3</sup> There is disagreement as to whether λοετρόν is a learned form taken from the Ionian dialect which came to be employed also by uneducated persons (the opinion of Hatzidakis), or is merely a vulgar form (the opinion of Krumbacher).<sup>4</sup>

Line 2. The restoration [θεομη]νεία, representing a common misspelling of

<sup>1</sup> I am indebted to my colleague Paul A. Underwood for making the drawing (based on the squeeze) which is reproduced here in Plate 14, and also for a valuable suggestion as to the reading of the second line.

<sup>2</sup> S. B. Psaltes, *Gramm. der byz. Chroniken* (Göttingen, 1913), § 124, pp. 62-63; see also Hesychius, *s. v.* λοετρόν.

<sup>3</sup> *Recueil des Inscr. gr. chrét. d'Asie Mineure*, ed. H. Grégoire, I (Paris, 1922), no. 277.

<sup>4</sup> See Psaltes, *loc. cit.*

θεομηνία, is suggested by the circumstance that there was a severe earthquake in this region on 6 Sept. A.D. 543, which destroyed half of Cyzicus;<sup>5</sup> and if the shocks had this effect at Cyzicus, they might well have been felt at Samothrace. The hypothesis that it was an earthquake which caused the damage which necessitated the restoration of the bath fits the text well, for it is not unnatural to suppose that two years might elapse before a modest bath in a place like Samothrace would be restored. There is evidence for another earthquake, in August of 554, which is said to have been felt at Constantinople and throughout the Empire, but there is nothing in the preserved records to suggest that this earthquake might have had any particular effect at Samothrace.<sup>6</sup>

Line 3. The only plausible explanation of the letters ANANEOTTE is that they represent a barbarous misspelling of ἀνενεώθη. *Tau* is not uncommonly substituted for *theta* in uneducated usage in Byzantine times.<sup>7</sup> Instead of εὐτ[υχω̅ς] one might restore εὐτ[έχως], but the former restoration seems more in keeping with the character of the inscription.

Line 4. It is to be presumed that the emperor named is Justinian I (527-565) rather than Justinian II (685-695, 705-711). Justinian the Great had, as we know from Procopius' *De aedificiis*, an unusual interest in building activities, and the relative prosperity of his reign, as compared with the circumstances of the reigns of Justinian II, makes it seem much more likely that a modest bath on Samothrace should have been rebuilt under Justinian I than under Justinian II.

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<sup>5</sup> Malalas, p. 482, 12 Bonn ed.; Theophanes, A.M. 6036, I, p. 244, 11 ff. ed. De Boor.

<sup>6</sup> Cf. Agathias, II, 15, p. 95, 18 Bonn ed.; Malalas, p. 486, 23 ff. Bonn ed.; Theophanes, A.M. 6046, I, p. 229, 5 ed. De Boor; Cedrenus, I, p. 674, 12 ff. Bonn ed.

<sup>7</sup> Psaltes, *op. cit.*, § 139, p. 69.



# A NEW MORTGAGE INSCRIPTION FROM IKARIA

(PLATE 15, a)

RECENTLY there was found by my friend, Mr. Eliopoulos, who lives at Dionysos<sup>1</sup> on a farm on the site of the ancient Ikaria, which was partially excavated by Professor Carl Darling Buck, an unpublished *horos* inscription.<sup>2</sup> It is the first such to be excavated at Ikaria and should be added to my article on "New Inscriptions from the Deme of Ikaria" in *Hesperia*, XVII, 1948, pp. 141-143.<sup>3</sup> The stone (Plate 15, a) is a small piece of rough schist, rather micaceous, with the layers running horizontally. Much of the surface was not smoothed—the upper and lower right-hand corners particularly—and the inscription does not cover the entire area. Generally such *horoi* are on rough high narrow stones, but this one is unique in having a much greater width than height. The maximum measurements are:

Height, 0.195 m. (of smoothed surface, 0.17 m.).

Width, 0.475 m.

Depth, 0.290 m.

Height of letters, from 0.01 m.

(O) to 0.02 m. The three

X's are 0.03 m. high.

ὄρος χωρίου καὶ

οἰκίας ἀποτίμημα

προικὸς Φανομάχει Κτήσωνος

ἐκ Κερ(αμέων) XXX

The inscription belongs to the first of four classes of *horoi*, ἀποτιμήματα, mort-

<sup>1</sup> On Dionysos and Ikaria and excavations there cf. Robinson, *Hesperia*, XVII, 1948, p. 141, notes 1 and 2.

<sup>2</sup> My former student, Miss Hazel Palmer, at my request, kindly took a squeeze and Director John Caskey, with the help of Miss Margaret Crosby, made photographs of the stone. For previous *horoi* published by me cf. *A.J.P.*, XXVIII, 1907, pp. 430-431; LXIX, 1948, pp. 201-204; *Hesperia*, XIII, 1944, pp. 16-21 with abundant bibliography and references to other such *horoi* and discussion of the different types. Especially important for dating *horoi* is Dow's article in *Hesperia*, XII, 1943, pp. 159-165.

<sup>3</sup> On p. 140, line 13, read *thighs* for *things*; p. 142, no. 3, line 1, ἔθυσεν for ἔθυσαν. Professor Günther Klaffenbach of Berlin calls my attention to the fact that the name Πάνης (*Hesperia*, XVII, 1948, p. 137) occurs in Megara (*I.G.*, VII, 39, line 4), and thinks that Αἰγίριος is an ethnicon, perhaps of the Megarian city Αἰγείρουσα which according to Theopompus (in Steph. Byz.) is called Αἴγειρος. But he gives Αἰγειρεύς, not Αἰγίριος. For the name Ἐλιωνίδης (*ibid.*, p. 142) cf. *C.I.G.*, I, 414, Ἐλεωνίδης, which has been incorrectly doubted. Tod suggests τοῦ Τελιονίδο. Τέλων occurs in *I.G.*, IV, 2, 186; Τελωνίδης in *I.G.*, III, 3, 40; Τέλλων in Paus., VI, 10, 9; Τηλώνδης or Τηλωνίδης in Paus., IX, 25, 8; Τέλλων in *I.G.*, VII, 3266, *G.D.I.*, 4157, 96; but in the sixth century we have τό, not τοῦ. M. Mitsos, Director of the Epigraphical Museum at Athens, reminds me that in *B.C.H.*, XXXVIII, 1914, p. 467, no. 10, we have Πάνιν [Αἰ]γυπτίου Ἀργείου. Probably then Panis is a man's name and Αἰγίριος an ethnicon; cf. Φιλαγίρης in *I.G.*, XII, 9, 56408. See now also *Polemon*, V, 1949, pp. 32-33. Tod writes that in *Hesperia*, *loc. cit.*, p. 143, line 9, he would prefer τοῖς Διονυσίοις to my restoration ἐν τῷ Διονυσίῳ, which is actually read by Papayiannopoulos-Palaios in *Συλλέκτης*, II, 1947, pp. 49, 56. Διονύσιον is of course the local temple, perhaps also referred to on p. 142, no. 2. In no. 3, line 4, perhaps read ἡ]δη for ἐπεὶ]δή.

gages given as security for property of minors or dowries.<sup>4</sup> Here we have a mortgage of both land and house as a security for the dowry of Phanomache, daughter of Kteson, from the deme of the Kerameis<sup>5</sup> for 3000 drachmas. It is interesting to have an inscription of that deme,<sup>6</sup> which belonged to the tribe Akamantis, found at Ikaria which belonged to the tribe Aigeis. The name Phanomache is new, though Phanomachos occurs in Kirchner's *P.A.* Kteson, her father, is probably the father of the orator from the same deme mentioned by [Demosthenes], LIX, *Against Neaira*, 48, (*P.A.*, 8910); cf. *Hesperia*, IX, 1940, p. 345, no. 44, line 11 (— ἄτης Κτήσωνος ἐκ Κεραμέων) of 319/8 B.C. He lived ca. 352 B.C. He may be the one who made a contribution of four Attic drachmas or two Aeginetan drachmas and four obols for rebuilding the Temple at Delphi ca. 363 B.C. (cf. Tod, *A Selection of Greek Historical Inscriptions*, II, 1948, No. 140, p. 120, line 65). The family had a long history, since we find in later times Ἡρακλείδης Κτήσωνος ἐκ Κεραμέων, *I.G.*, II<sup>2</sup>, 6325a. The use of abbreviations for deme-names is found in such inscriptions of the fourth century, as for example in that published by me in *A.J.P.*, XXVIII, 1907, pp. 430-432.<sup>7</sup> Most such inscriptions have χωρίο, not χωρίου, but ου can be used by the second half of the fourth century.<sup>8</sup> The use of ει for ηι does not occur before 378 B.C.,<sup>9</sup> but such *horoi* have the archon's name long before the end of the fourth century B.C.<sup>10</sup> So this inscription, without the archon's name, probably dates ca. 325 B.C., approximately the same time as that in *Hesperia*, IX, 1940, p. 345 (319/8 B.C.) which mentions a son (— ἄτης) of this same Kteson.

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<sup>4</sup> Cf. Harpocration, *s.v.* ὄρος; Pollux, III, 85; Roberts-Gardner, *Inscriptions of Attica*, pp. 494-498; Dittenberger, *Sylloge*<sup>3</sup>, 1187-1198; Michel, *Recueil*, 1364-1382; *I.G.*, II<sup>2</sup>, 2642-2770, especially 2659-2683; Paoli, *Studi di diritto attico*, 1930, pp. 141-194. Generally we have ἀποτίμημα, but in *I.G.*, II<sup>2</sup>, 2669 and 2678 ἀποτιμήματος (in 2679 ἀποτιμημάτων), 2673 (ἀποτετιμημένης), 2674 (ἀποτετιμημένου), 2675, 2676 (ἀποτετιμημένων); *Hesperia*, III, 1934, p. 65, no. 57; Suppl. VII, 1943, p. 1. Cf. for the same wording and same amount, for example, *I.G.*, II<sup>2</sup>, 1149, ὄρος χωρίου καὶ οἰκίας ἀποτίμημα προικὸς Πυθοστράτει Μενάλκων Ἀναφλυστίων XXX, which surely dates before 200 B.C., perhaps from the end of the fourth century B.C. In *A.J.P.*, LXIX, 1948, p. 202, I published another such new mortgage of 5200 drachmas given as security for the dowry of Hippostrate with no mention of the deme. *I.G.*, II<sup>2</sup>, 2680, has such a mortgage of 5100 drachmas; II<sup>2</sup>, 2662 has 4500 drachmas. On the subject of dowry see the new book of Joannes M. Sonté, *Προῖξ κατὰ Κλασσικὸν καὶ Βυζαντινο-ρώμαϊκὸν Χρόνον*.

<sup>5</sup> On Κεραμεῖς cf. *R.E.*, V, p. 67; Aristophanes, *Frogs*, 1093. In *I.G.*, II<sup>2</sup>, 4353 we have — — — — — χος Φάνο ἐκ Κεραμέων.

<sup>6</sup> An inscription with ἐκ Κεραμέων was found as far away from the Kerameikos as Rheneia near Delos, *I.G.*, II<sup>2</sup>, 6336 (now in Aegina); another at Spata in Attica, *ibid.*, 6340, but most such, 6313-6344, were found in or near the Kerameikos, a few at Peiraeus.

<sup>7</sup> Cf. also *Hesperia*, XIII, 1944, p. 18, n. 13.

<sup>8</sup> Cf. Larfeld, *Handbuch der Epigraphik*, pp. 462 ff. After 319 B.C. most have χωρίου; cf. Dow as cited in note 2.

<sup>9</sup> Cf. Meisterhans-Schwyzler, *Grammatik der Attischen Inschriften*<sup>3</sup>, p. 39.

<sup>10</sup> I published in *A.J.P.*, LXIX, 1948, p. 203, a *horos* from the archonship of Praxiboulos, 315/4 B.C.



## INSCRIPTIONS FROM ATTICA

(PLATE 15: b, c, d)

IN THE course of the years 1947, 1948, and 1949 the undersigned have made a series of excursions in Attica, as time and their other duties permitted, for the purpose of making squeezes of inscriptions in the outlying areas for the collection at the Institute for Advanced Study. Among the many inscriptions already known, a few new pieces turned up which we publish below. We add also a few comments on some previously published texts.

### 1. Dedication to Pythian Apollo (Plate 15, b)

Church of the Panagia, Merenda, southeast of Markopoulo, site of the ancient deme of Myrrhinous. Found in June 1948 lying in front of the church where it had probably been at least since 1929 to judge by the graffito on the face. Probably discovered somewhere in the immediate neighborhood. Brought to the Epigraphical Museum, Athens, March 1949; now E.M. 13,120.

The stone is a rectangular pillar of Hymettian marble which tapers slightly towards the top. It is broken below and it has been re-worked above at the back to a rough curving surface as if someone had started to make it into a capital for the window column of a church. The sides are dressed with a toothed chisel at the edges and are smooth picked at the center. The back is rough picked. The letters run vertically from top to bottom. The inscription is complete at the right (lower) end, and only a little is missing at the left (top) as the meter shows. The inscribed face is marred by a modern graffito consisting of the name Stelios Katroulis, the date 1929, a cross and a steamboat. The ancient lettering is done carefully and with great delicacy.

P.H., 0.57 m.; W., above, 0.235 m., below, 0.255 m.; Th., above, 0.20 m., below, 0.215 m.; L.H., 0.013-0.015 m.

First half of fourth century B.C.

[Νίκης (μ') ἄ]θάνατογ Ξεγοφῶν μνημεῖον ἑαυτῷ  
[θῆκεν Ἀπ]όλλωνος Πυθίου ἐν [τ]εμένει[ι].

The inscription is an elegiac couplet whose second line is identical with that of the well-known inscription of Peisistratos the younger on the altar from the Pythion by the Ilissos, *I.G.*, I<sup>2</sup>, 761. For the restoration of the beginning of line 1 we have adopted a suggestion of Dr. Werner Peek whom we consulted by letter. We read

the name of the dedicator as Xenophon and we believe this to be correct although only the very slightest traces of the first three letters remain. The name is a common one and no identification seems possible. The historian Xenophon, although he belonged to the near-by deme of Erchia, would seem to be excluded because he spent most of his later life away from Athens.

The worship of Pythian Apollo in Myrrhinous is not otherwise attested. Apollo is mentioned, however, without epithet, along with Zeus and Demeter in an oath preserved in a decree of the Myrrhinousians, *I.G.*, II<sup>2</sup>, 1183, line 11.

Since it is also possible that the stone may have been brought to Merenda from elsewhere in the district, we add the following observations. Not far from Merenda lies Prasiai whence the *theoria* set sail for Delos, and in this district Apollo was worshipped.<sup>1</sup> Also near Merenda is the deme Philaidai, where Peisistratos had his estate. Peisistratos' grandson dedicated the inscribed altar in the Pythion in Athens (*I.G.*, I<sup>2</sup>, 761). What connection, if any, there may be between the Pythion in Athens and that mentioned in our inscription cannot, unfortunately, be determined. The sanctuary of Pythian Apollo by the Ilissos in Athens overlies a cemetery of the Geometric period and the pottery found about its foundations precludes a date earlier than the beginning of the sixth century B.C. for its establishment. This agrees with the later literary tradition according to which the sanctuary was founded by the elder Peisistratos. On this see Judeich, *Topographie von Athen*<sup>2</sup>, pp. 65, 386, who, however, does not accept Hiller's view (*R.E.*, IV, 2551) that the sanctuary was founded by the elder Peisistratos. It seems probable that Peisistratos introduced the worship of Pythian Apollo into the city not from Delphi where he would have been hindered by political considerations, but from his own district, as he did with other cults, thus avenging himself on Delphi which had supported his enemies the Alkmeonids. Because the sanctuary of Pythian Apollo by the Ilissos had been founded by his grandfather, the younger Peisistratos will have chosen it as a suitable place to set up a "memorial of his archonship."

### 2-3. Inscriptions in the Sanctuary of Aphrodite on the Sacred Way to Eleusis

Re-examining the rock-cut inscriptions in the sanctuary of Aphrodite on the Sacred Way to Eleusis just beyond Daphni<sup>2</sup> we observed a hitherto unrecorded dedication to Aphrodite and were able to add another word to one of the already published inscriptions. The second of these points had been noted independently by Mr. John Travlos who has kindly allowed us to mention it here. He has also provided the sketch reproduced here as Fig. 1 showing the location of the respective

<sup>1</sup> S. Solders, *Die ausserstädtischen Kulte und die Einigung Attikas*, pp. 19, 25.

<sup>2</sup> Recent excavation reports: *Πρακτικὰ Ἀρχ. Ἑτ.*, 1937, pp. 25 ff., 1938, pp. 28 ff. and 1939, pp. 39 ff.



inscriptions. It may be compared with the photographs published in *Πρακτικά*, 1939, p. 40, Fig. 1, and *Ἀρχ. Ἐφ.*, 1910, pp. 39-40, Fig. 2.

The hitherto unrecorded dedication consists merely of the latter part of the name of the goddess Aphrodite [*Ἀφρο*]δίτει. Like the other dedications found in this sanctuary, it appears to date from the fourth century B.C.

The memorial inscription *I.G.*, II<sup>2</sup>, 13,230<sup>3</sup> has been known for nearly a hundred

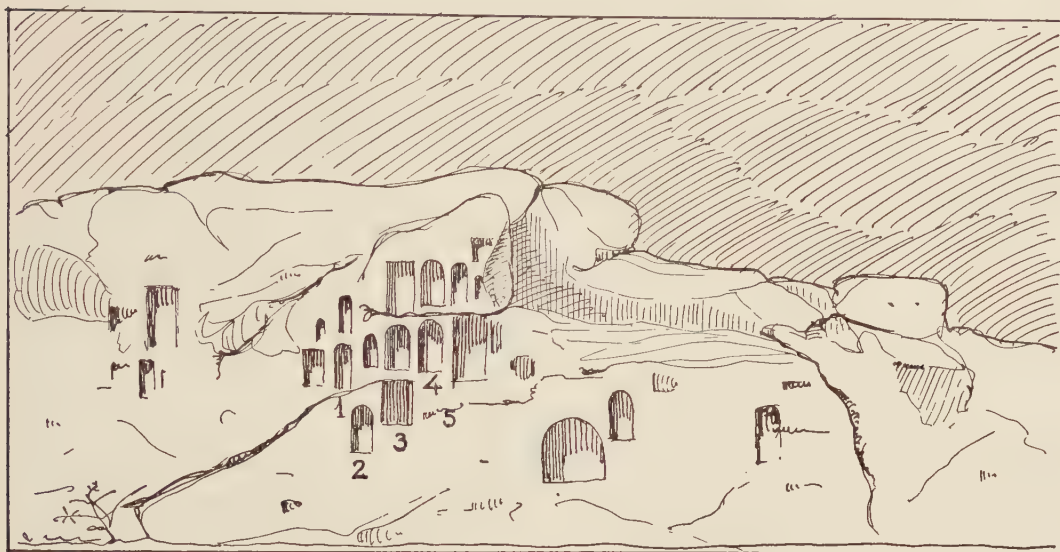


Fig. 1. Sanctuary of Aphrodite on the Sacred Way to Eleusis. Sketch of Rock-cut Niches Showing Location of Inscriptions. (1) The newly discovered Dedication to Aphrodite. (2) The Euandria Dedication, *I.G.*, II<sup>2</sup>, 4574a. (3) The Memorial Inscription, *I.G.*, II<sup>2</sup>, 13230. (4) *I.G.*, II<sup>2</sup>, 4574b. (5) *I.G.*, II<sup>2</sup>, 4574c.

and fifty years and has been published several times, badly at first for it is hard to read, then better. There is still something to add at the end of the first line, however, and the revised text is as follows:

Ἐμνήσθη ἐπ' ἀγαθῷ [Σ]αβινίας  
Πυθονίκης Μάαρκος  
Orbius

On inscriptions of this type see O. Broneer in *Corinth*, Vol. III, Part I, *Acrocorinth*, pp. 50-60, and A. Rehm, *Philologus*, XCIV, 1/3 (1940), pp. 1-31, which we know only from a reference in *A.J.A.*, LIII, 1949, p. 63.

<sup>3</sup> As the last volume of the *Corpus* which contains this inscription is rather rare, we give the earlier *Corpus* references: *I.G.*, III<sup>1</sup>, 3823; *C.I.G.*, 508.

## 4. Grave stele

Church of the Panagia, Thiti, northeast of Vari, near the site of the ancient deme of Lamptrai.<sup>4</sup>

Found July 6, 1947, lying in the shed in front of the church. It was discovered at least as long ago as 1932, for among the many modern graffiti that now disfigure the stone there is one with this date. The stone is large, and we may therefore say with confidence that it comes from the immediate neighborhood.

A large marble stele with two rosettes near the top. Broken above. Back rough picked. The inscription is below the rosettes. Stoichedon.

P.H., 1.35 m.; W., above, 0.482 m., below, 0.515 m.; Th. *ca.* 0.10 m.; L.H., 0.02-0.025 m.

Fourth century B.C.

Πάραλος  
Πανσανίου  
Λαμπτρεύς

## 5. Grave lekythos

Church of St. Athanasios in the district of Kroniza, east of Kouvara.<sup>5</sup> Found July 2, 1948, lying on the floor inside the church. Probably found in the neighborhood.

A grave lekythos of Pentelic marble. Only the body is preserved and that is broken behind. In low relief, a standing man at left who gives his hand to a seated woman.

P.H., *ca.* 0.66 m.; D. *ca.* 0.32 m.; L.H. *ca.* 0.01 m.

Fourth century B.C.

Above man  
Πάμφιλος

Above woman  
Κλειτόπολ[ι]ς

## 6. Grave lekythos

Church of the Asomati, southeast of Spata. Found May 18, 1947, lying just outside the church to the south.

<sup>4</sup> Perhaps Lower Lamptrai is to be sought here although the site is not on the sea. Note that a decree of the people of Lamptrai, *I.G.*, II<sup>2</sup>, 1204, was found close by. Upper Lamptrai is at Lambrika halfway between here and Koropi.

<sup>5</sup> It may be noted in passing that the early Christian tombstone published by G. K. Zesiou, *Ἐπιγραφὰὶ Χριστιανικῶν χρόνων τῆς Ἑλλάδος*, 1917, p. 17, and reprinted in his collected essays *Σύμμικτα*, p. 13, note 1, is built into the west wall of this church (not "from Laureion" as erroneously stated in *Hesperia*, XVI, 1947, p. 3, but the "Lavriotiki," the Laurion district in its wider sense).



A grave lekythos of Pentelic marble, only the body preserved. In low relief at left a standing man who faces a seated woman.

P.H., *ca.* 0.65 m.; L.H., *av.* 0.012 m.

Fourth century B.C.

Above man

ῥόστρατος

Above woman

Ἀρχίππη

The man's name was probably Philostratos, Demonstratos, or the like.

### 7. Columnar grave monument (PLATE 15, c)

Kephissia, in a lot at the corner of Tatoi Road and Eukleidou St. April 27, 1947.

A columnar grave monument of Hymettian marble, re-used as a door sill, its back much worn.

H., 0.95 m.; D., at top, 0.40 m.; L.H., *av.* 0.035 m.

I B.C. – I A.D.

[Ἀ]πολλώνιος

[Ἀ]πολλωνίου

Ἀχαρνέως

For the family to which this man probably belonged, see Kirchner, *Prosopographia Attica*, Nos. 1522-1524.

### 8. Columnar grave monument

Church of St. Nicholas, northwest of Spata. Found May 11, 1947 outside the church. Taken to the Epigraphical Museum, Athens, June 24, 1948. Now E.M. 13,109.

A columnar grave monument of Hymettian marble, broken below, a fragment missing above.

P.H., 0.24 m.; D., at top, 0.17 m.; L.H., *av.* 0.02 m.

II – I B.C. (?)

Εὖνο[μος]

Δημητρίου

Ἀνκυρανός

### 9. Columnar grave monument (PLATE 15, d)

Franka Church east of Spata. Found January 27, 1947, lying outside the church.

A columnar grave monument of Hymettian marble, broken below.

P.H., 0.32 m.; D., at top, 0.18 m.; L.H., *av.* 0.02 m.

I B.C. – I A.D. (?)

Δόκων  
χρηστός

#### 10. Columnar grave monument

Church of Evangelistria, east of Liopesi. Found June 24, 1948, outside the church; taken to Epigraphical Museum, Athens; now E.M. 13,107.

A columnar grave monument of Hymettian marble, its surface much worn. Coarse lettering.

H., 0.65 m.; D., at top, 0.185 m.; L.H., 0.025-0.04 m.

II – III A.D.

Δ α μ ώ  
Χαῖρε

#### 11. Grave stele

Inside the church of Evangelistria, east of Liopesi. Fragment of a grave stele of Pentelic marble, reworked as a capital for a window column of a church; taken to the Epigraphical Museum, Athens; now E.M. 13,108.

P.H., 0.25 m.; P.W., 0.17 m.; Th., 0.115 m.; L.H. 0.02 m.

Fourth century B.C.

-- Θ Ε Ο --  
-- Ε Ω --  
*vacat*

#### 12. *I.G.*, II<sup>2</sup>, 5347 = *I.G.*, II<sup>2</sup>, 5359

This inscription has been copied and published on a number of occasions: see commentary on 5347. Gardikas republished it badly and without realizing that he was doing so (*Πρακτικά*, 1920, p. 46), and Kirchner has included Gardikas' text in the *Corpus* as a separate inscription, 5359. When one visits the spot, however, and compares the various descriptions, it is clear that there is but one inscription. It has apparently been somewhat damaged since the time of the original publications, and some letters are now entirely or partially missing, others are faint and covered with whitewash. Gardikas having read only the most obvious letters failed to identify the stone which he copied with the one already published, although he discusses the latter at some length.

MARKELLOS TH. MITSOS  
EUGENE VANDERPOOL

ATHENS, GREECE



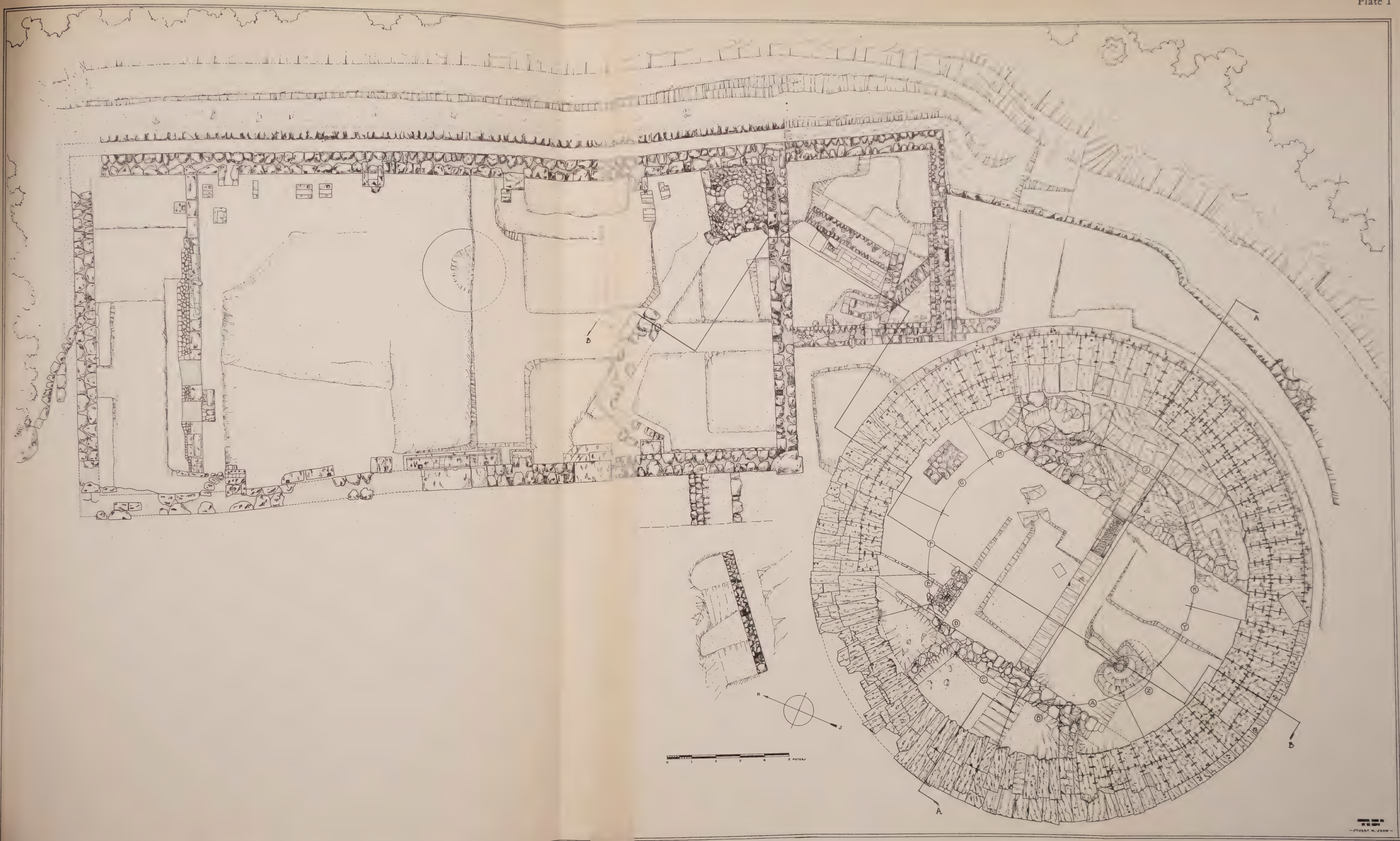


Fig. 1 North Area of Sanctuary after the Campaign of 1948

ERL LEHMANN: SAMOTHRACE









Fig. 2 Museum in Samothrace

KARL LEHMANN: SAMOTHRACE





Fig. 3 Anaktoron. Eastern Peristasis

KARL LEHMANN: SAMOTHRACE



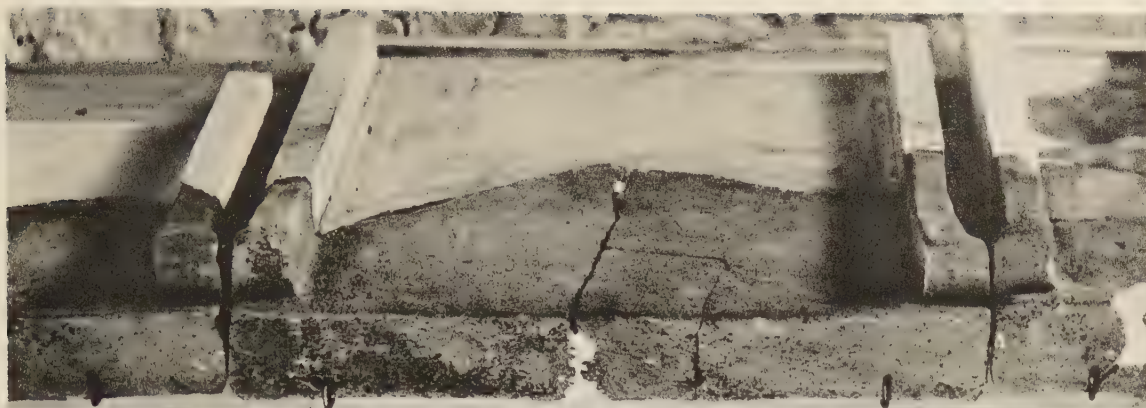


Fig. 4 Anaktoron. Eave Tiles



Fig. 5 Anaktoron. Edge of Hellenistic Roof



Fig. 6 New Temple. Seen from South



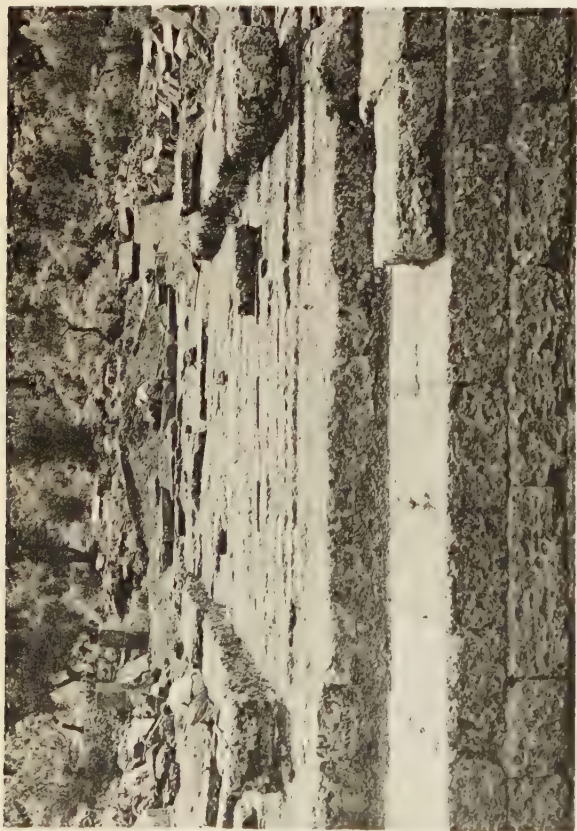


Fig. 7 New Temple. View from Pronaos into Cella



Fig. 9 New Temple. Interior of Pronaos, Seen from East



Fig. 8 New Temple. Interior Seen from South



Fig. 10 New Temple. Pronaos, North-eastern Corner





Fig. 11 New Temple. Pronaos Foundation on Eastern Side



Fig. 13 New Temple. Marble Antefix



Fig. 12 New Temple. Eschara in Forepart of Cella



Fig. 14 Arsinoeion. Interior after Excavation

KARL LEHMANN: SAMOTHRACE

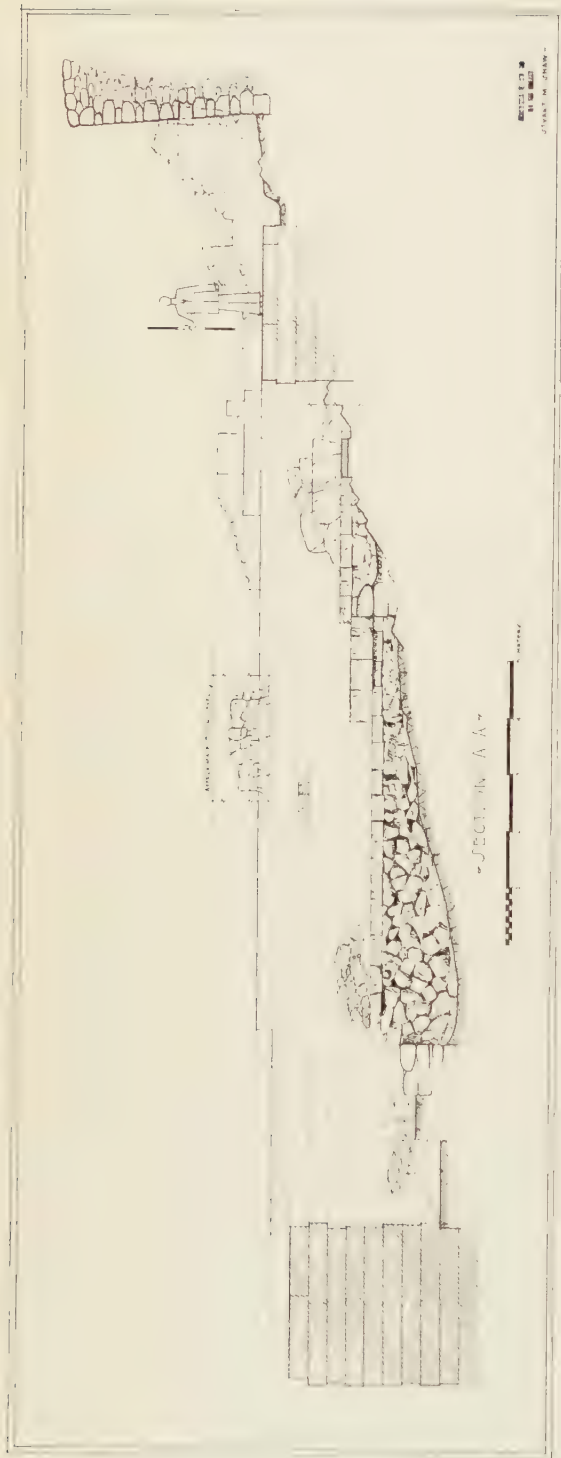


Fig. 15 Arsinoeion. East-West Section

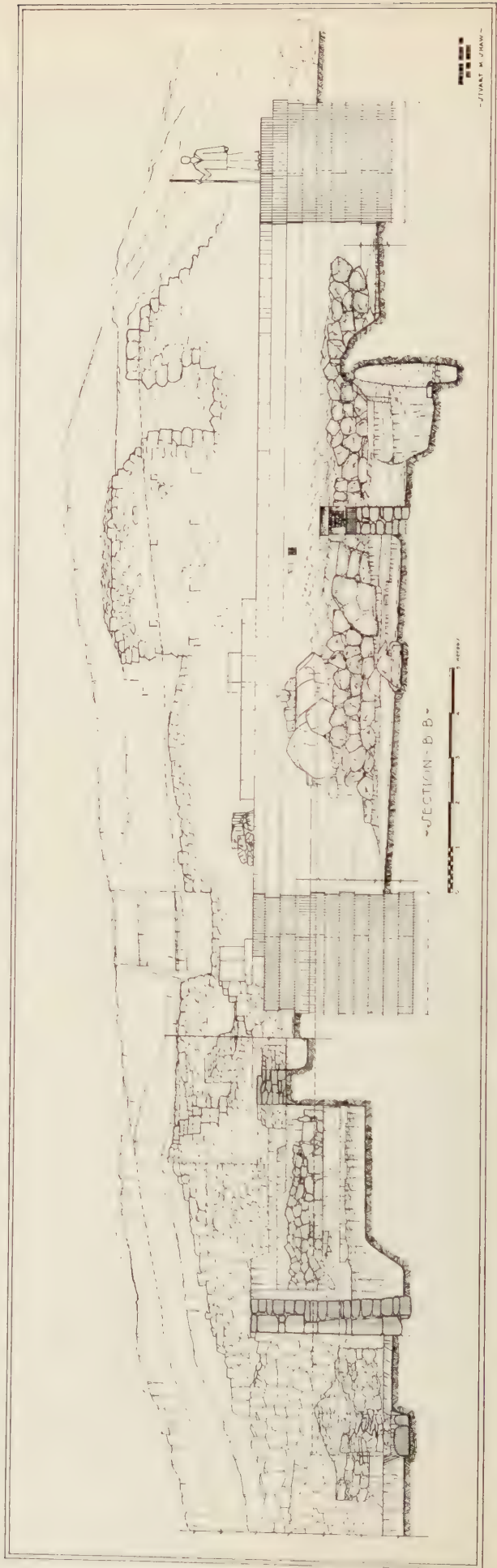


Fig. 16 North-South Section through Southern Part of Anaktorion, Sacristy, and Arsinoeion

KARL LEHMANN: SAMOTHRACE





Fig. 17 Arsinoë. Cyclopean Wall and Orthostate Structure



Fig. 19 Arsinoë. "Sacred Rock" and Steps



Fig. 18 Arsinoë. Northern Part of Cyclopean Wall on "Sacred Rock"



Fig. 20 Arsinoë. Orthostates, Seen from South



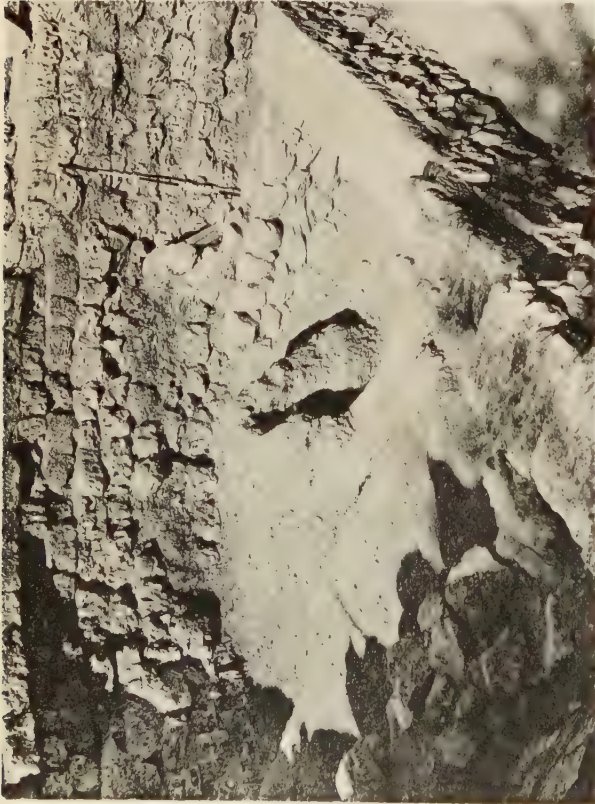


Fig. 21 Arsinoëion. Southern Precinct with Bothros



Fig. 22 Arsinoëion. Shaft of Bothros with Sacred Stone



Fig. 23 Arsinoëion. Earlier Altar Foundation





Fig. 24 Fragment of Aqueduct

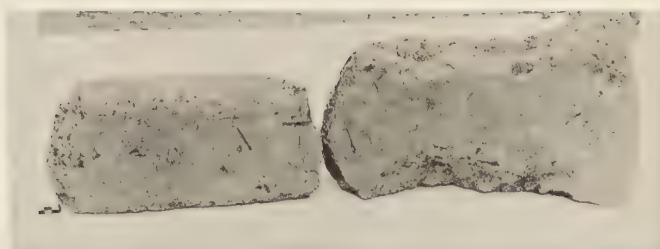


Fig. 24a Baked Greek Bricks



Fig. 25 Marble Lamp of Early Type

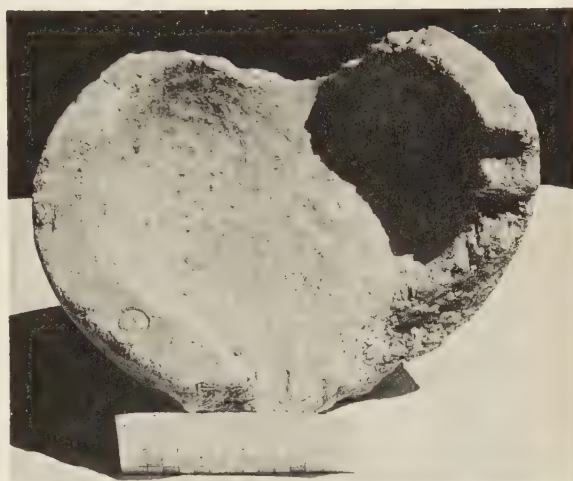


Fig. 26 Inscribed Archaic Marble Lamp



Fig. 27 Lamp Spout with Stamped Monogram



Fig. 28 Fragment of Hellenistic Dish



Fig. 31 Cult Scene. From a Red-Figured Kylix, Oxford



Fig. 29 Fragments of Vases with Incised ©



a



b

Fig. 30 Fragmentary Large Vase with Inscription on Inside





Fig. 35 Marble Head of a Woman

KARL LEHMANN: SAMOTHRACE

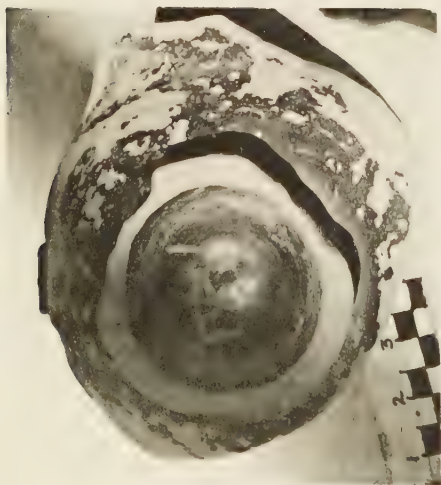


Fig. 32 Bottom of Kantharos with  
Inscription



Fig. 33 Early Archaic Kantharos



Fig. 36 Hellenistic Cinerary Urn, Marble



Fig. 34 Bronze Fibula



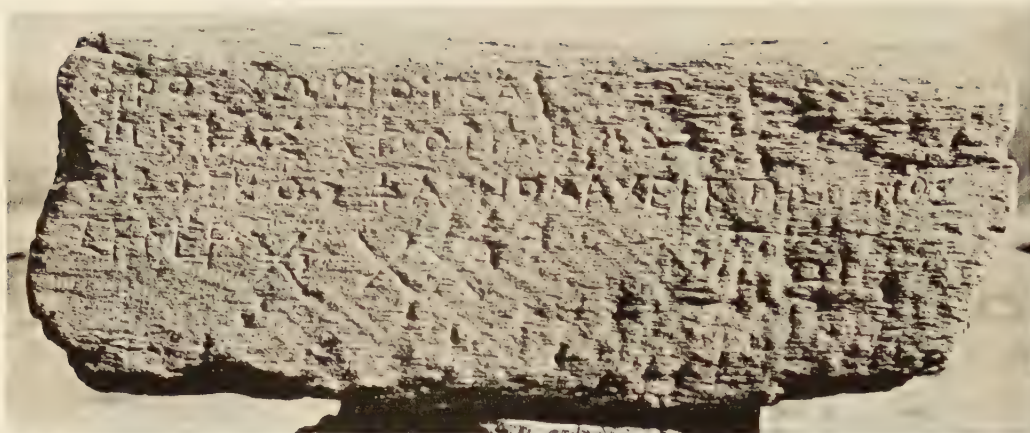
Fig. 37 Hellenistic Tiled Tomb

KARL LEHMANN: SAMOTHRACE



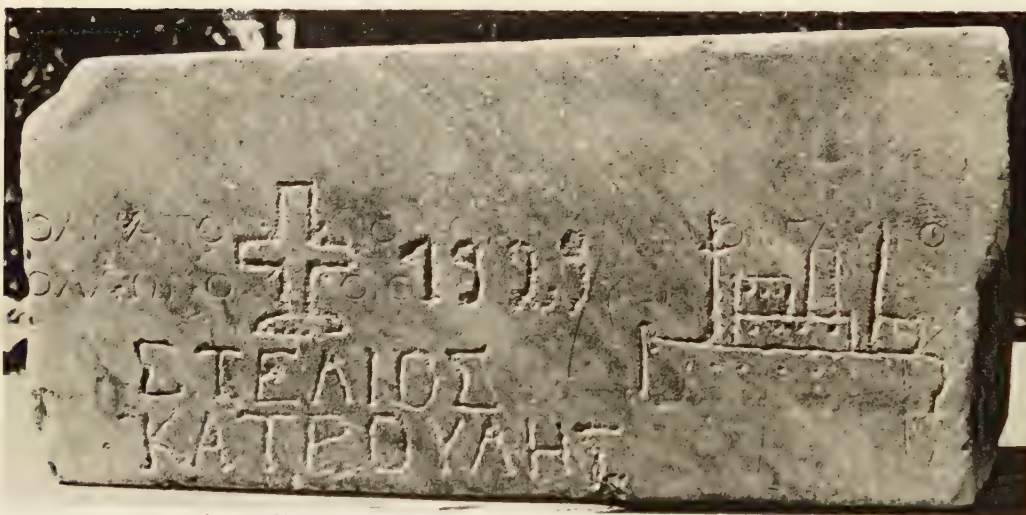
ΤΟΛΟΕΤΡΟΝ  
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 ΤΙΝΙΑΝΟΥΕΤΟΥ



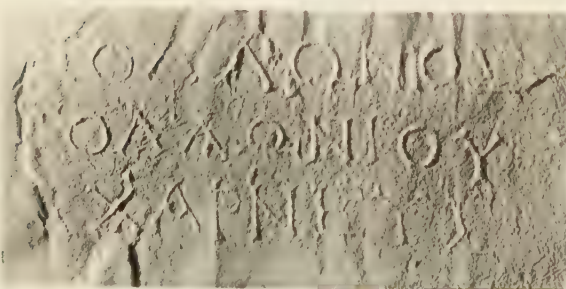


a. Mortgage Inscription at Ikaria

D. M. ROBINSON: MORTGAGE INSCRIPTION FROM IKARIA



b. Dedication to Pythian Apollo, from Merenda, Attica



c. Grave Monument in Kephissia. (Photograph from a squeeze)



d. Grave Monument near Spata. (Photograph from a squeeze)

MITOS AND VANDERPOOL: INSCRIPTIONS FROM ATTICA



# THE ODEION IN THE ATHENIAN AGORA

(PLATES 16-80)

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## INTRODUCTION

### *Exploration*<sup>1</sup>

THE CAMPAIGN of 1934 brought to light near the middle of the Agora the southwest corner of a building which, judged by the massive proportions and good workmanship of its foundations, had obviously been of some consequence (Pl. 24). By the end of the season, however, only two angular sections of foundation,

<sup>1</sup> In the course of this study I have incurred deep obligations to several colleagues: to Dorothy Burr Thompson, Margaret Crosby and Eugene Vanderpool who excavated the building and left

the one inside the other, had appeared; between them lay a firm earth floor from which rose the stumps of four marble columns. A vast mass of burnt debris overlying the floor proved clearly that the building had been destroyed by fire, probably in the third century of our era, but its scheme and its identification remained obscure.

In the campaign of 1935 practically all the rest of the building was cleared (Pls. 22, 23). The appearance of an orchestra and marble benches together with traces of a stage and scene building left no doubt that we had to do with a theatre; the presence of broken roof tiles throughout the area showed that the building had been roofed. Its identification with "the theatre called the Odeion" mentioned by Pausanias in his account of the Agora (I, 8, 6; 14, 1) was now proposed. In 1936 the removal of the deep accumulation over and around the building was completed. In 1939 and 1946 supplementary digging was carried out to permit its closer study. The whole area has now been explored to bedrock with the exception of the northern parts of the east and west corridors. Some additional information on the setting and on the approaches to the building may be expected from the final exploration of the environs to north, east and west. More fragments of its superstructure may also come to light in the demolition of late walls in the area.<sup>1</sup>

### *Identification of the Building*

The identification of the building follows easily and certainly from Pausanias' account of the Agora (I, 8-14).<sup>2</sup> Immediately after his reference to the Temple of Ares and the adjacent statues he names the "theatre which they call the Odeion"; after discussing the statues that stood in front of the building and inside it, he notes that near by is the "fountain called Enneakrounos." The identification of the Temple of Ares may now be regarded as certain;<sup>3</sup> this temple stood some thirty metres to the northwest of our building. At the southwest corner of the Agora, some seventy-

useful records of their findings; to Alison Frantz who produced most of the photographs; to Marian Welker who made the rendered restorations of the capitals (Pls. 30b, 34b) and did the drawings of the orchestra floor (Pl. 43a and b) and of the stucco (Pl. 56); to Lucy Talcott who smoothed the way at every turn. Mr. Gorham Phillips Stevens by his lively interest and acute observations has helped in solving many problems in the restoration. I owe most, however, to John Travlos, for only by the alchemy of his skill, architectural feeling and patience has the design of a great building been won back from a few dozen shattered blocks. His signature on the drawings implies his fullest cooperation in every stage of the study and only his own modesty has kept his name from the title page.

<sup>1</sup> For the excavation reports cf. *Hesperia*, IV, 1935, pp. 362 f.; V, 1936, pp. 6-14; VI, 1937, p. 352; IX, 1940, pp. 304 f.; XVI, 1947, pp. 200 ff.

<sup>2</sup> For a general discussion of Pausanias' route through the Agora see E. Vanderpool, *Hesperia*, XVIII, 1949, pp. 128-137 (for the Odeion, p. 133). Dörpfeld's contention that our building is to be identified with the true "Theseion" is too fantastic to merit discussion (*Alt-Athen und seine Agora*, Berlin, 1937 and 1939, *passim*). On the arbitrary handling of the problem by Carlo Anti (*Teatri greci arcaici*, Padua, 1947, pp. 192 ff.) cf. my review in *A.J.P.*, LXIX, 1948, pp. 451 ff.

<sup>3</sup> W. B. Dinsmoor, *Hesperia*, IX, 1940, pp. 1-52.



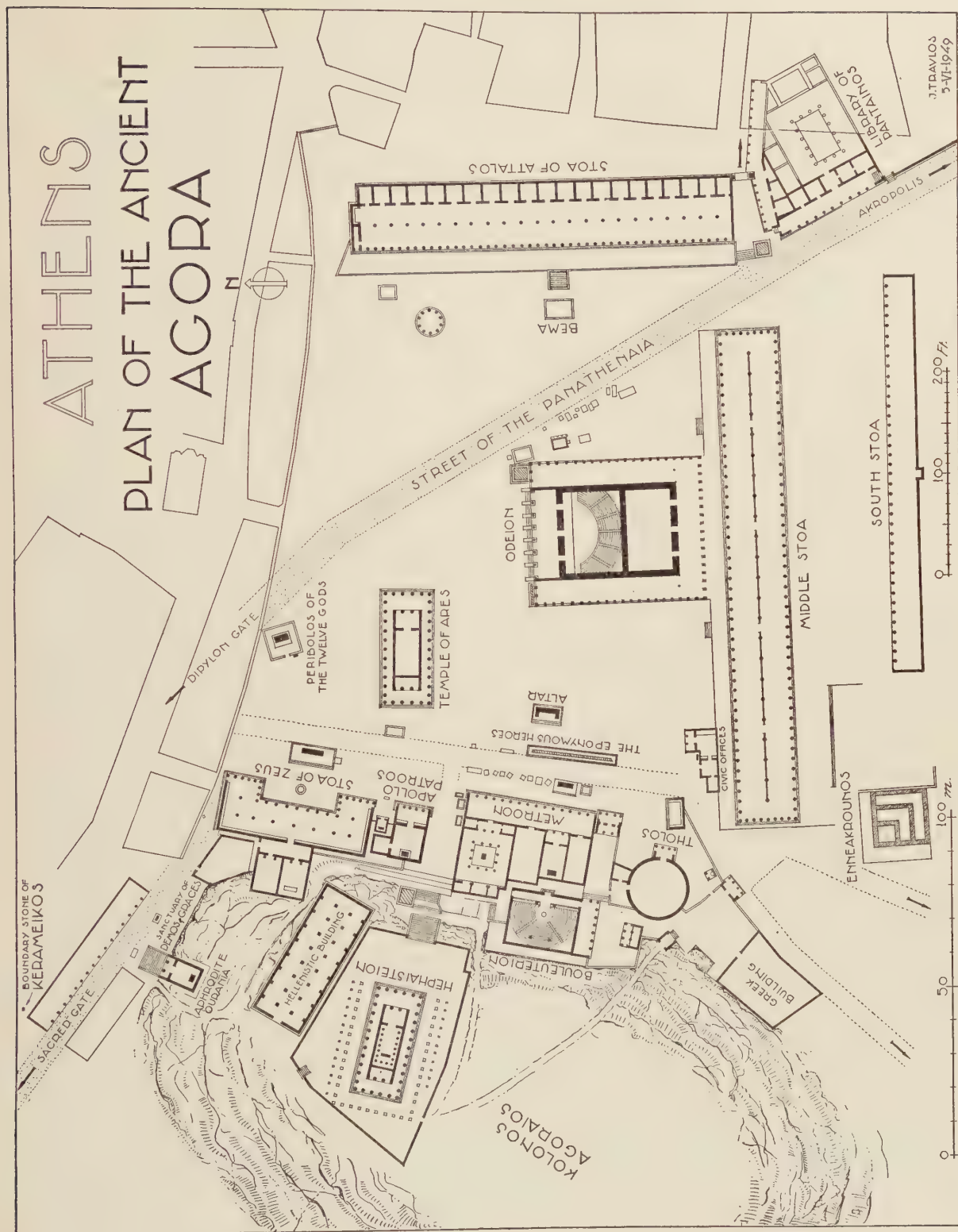


Fig. 1. Plan of the Agora in the Second Century after Christ, Restored

five metres to the southwest of our building, have appeared the foundations and scattered blocks of a structure that was certainly a large fountain house of the late archaic period; that this was the fountain house referred to by Pausanias as the Enneakrounos may be taken as virtually certain. Between the Temple of Ares and this fountain house the only theatre-like building is the structure under discussion.

It has generally been assumed that the building referred to by Pausanias is identical with "the theatre in the Kerameikos called the Agrippeion" which is twice given as the locale for rhetorical displays of about the middle of the second century after Christ by Philostratos in his *Lives of the Sophists* (II, 5, 4; II, 8, 4). The identification, on the face of it, seems reasonable. The name Agrippeion, however, implies that Agrippa had to do with the erection of the building; this too had been assumed by scholars both before and since the discovery of the building in the Agora.<sup>1</sup> It remains to be seen whether the evidence now available for dating the Odeion will permit of this association (see below, p. 89).

### *Present State of the Building*

The collapse of the building in consequence of the fire in the third century after Christ sealed under and so preserved for the excavators many fragmentary blocks from the superstructure and much evidence of value for its reconstruction (Pl. 16). Soon after the fire, however, the ruinous building was stripped of the great bulk of its stone and marble which was immediately incorporated in the new fortifications, the so-called "Valerian Wall," to the east; many remnants of these blocks have been recovered from the "Valerian Wall" in the course of the current excavations. Certain material did not readily lend itself to re-use, a consideration which will account for the survival on the spot of a comparatively large number of great column capitals, and of the colossal marble sculpture that had adorned the façade of the Odeion. These marbles came to light about the year 400 when a large gymnasium was erected above the ruins of the Odeion (Fig. 21). Four of the colossal statues were re-used by the gymnasium builders to decorate the façade of the new building and several of the capitals were imbedded in the concrete of its foundations. Between the destruction of the Odeion and the erection of the Gymnasium the ground level in the area had risen from one to three metres. The Gymnasium flourished for somewhat over a century; thereafter it was abandoned and gradually went to pieces. In the period of desolation that followed, silt again began to wash down, raising the ground level still higher. House builders of the Byzantine period thoroughly pillaged the ruins of the Gymnasium but seldom intruded into the depths of the Odeion.

<sup>1</sup> See especially W. Dörpfeld, *Ath. Mitt.*, XVII, 1892, pp. 252-260; P. Graindor, *Athènes sous Auguste*, Cairo, 1927, p. 180; W. Judeich, *Topographie von Athen*<sup>2</sup>, Munich, 1931, p. 350; W. B. Dinsmoor, *Hesperia*, IX, 1940, p. 51 and *A.J.A.*, XLVII, 1943, pp. 383 f.



The distribution of those elements of the Odeion that were found *in situ* by the excavators will be clear from the plan of the actual state (Pl. 16). On this plan have also been indicated the places of finding of the more important loose lying blocks from the superstructure.

The walls are best preserved in the southeast part of the building where the foundations are intact and the outer wall still rises to a height of two courses above floor level (Pl. 27a). The preservation of this part of the building is due to the great depth to which it was set, for this led to its early silting. Many blocks remain in position in the line of the north wall of the building, which still rises to a maximum height of two courses above ground level at either extremity. The lowest foundation course of the scaenae frons has survived intact, thanks again to its great depth. The small-stone packing for the original cross-wall between lobby and auditorium could be traced throughout the width of the building while many blocks of a later cross-wall were preserved by the overlying concrete foundation of the Gymnasium.

Most of the marble paving of the orchestra and a little of that of the scene building were found in place, albeit badly shattered, and enough of the benches, stairs and stage front remain to permit the reconstruction of those parts. The packed earth floor of the outer corridor is well preserved over most of its length and of an original total of 23 small columns that stood in the corridor nine are now represented by stumps, eight others by bedding blocks.

Across the north front of the building enough blocks and foundation beddings remain to permit the restoration of an original small porch on the axis while scattered blocks survive from seven marble stairways flanked by statue bases which subsequently took the place of the porch.

One well preserved pilaster capital was found imbedded in the late Roman foundations near the northwest corner of the Odeion. Three or possibly four round capitals from the main order have survived, one in a late Roman foundation near the northeast corner of the Odeion, the others in the destruction debris of the building in its south central part. Small fragments from the bases of both round columns and pilasters were found incorporated in the concrete foundations of the Gymnasium at various points. The best preserved of several fragmentary round column drums lay in late Roman accumulation to the north of the northeast corner of the Odeion. One large and one small fragment from the main architrave of the building lay on the floor of the outer corridor near the southwest corner. The best preserved cornice block appeared in the same area. Vast masses of broken terracotta roof tiles overlay the whole area of the building while a number of marble tiles, several of them complete though broken, lay in the burnt debris across its south end.

Enough of the decorative sculpture of the stage front was recovered from the debris above the orchestra floor to indicate the original scheme. The excavation also yielded a number of new and useful fragments of the colossal marble figures.

*The Pre-Odeion History of the Area*

The Odeion was planted in the very middle of the ancient square and against the terrace wall of the Middle Stoa, a building of the second century B.C. The state of the terrain before the erection of the Odeion has been made clear by the excavation, particularly in the mid part of the area where a considerable stretch of the pre-Odeion floor of the square has been swept clear (Pl. 26a). This early floor slopes gently upward from north to south, rising somewhat more abruptly in the width of the terrace of the Middle Stoa (Pl. 18). In order that the gradient might be uniform and the surface smooth, the bedrock had been trimmed down in places; elsewhere hollows were filled with earth. Everywhere the surface was gravelly and very hard packed.

Very few remains of earlier structures have come to light in the area of the Odeion. The most considerable lies in the southwest corner and consists of a foundation for a rectangular structure together with short lengths of what would appear to have been enclosing walls to north and east (Pls. 16, 26b).

Both the central part of the monument and its peribolos have been cut away to west and south by the builders of the inner rectangle of Odeion foundations. The principal element in the early foundation is made up of a single course of heavy conglomerate blocks set well down in the bedrock; a still lower course of stretchers beneath the north edge of the monument suggests that the greatest weight fell there. Although the north edge is now overlaid by the foundation for the original cross-wall of the Odeion, it may be examined in section toward the west; the north-to-south dimension is 3.10 m. The west end was cut away by the Odeion builders, who left an east to west length of only 3.75 m. From the configuration of bedrock, however, it is clear that the west end must have fallen within the width of the inner foundation of the Odeion. Restored within these limits and with a symmetrical arrangement of blocks, the foundation would have measured originally about 5 m. in length from east to west.

From the southeast corner of this rectangular foundation a wall bedding *ca.* 0.80 m. wide extends southward only to be cut away after a course of 2.75 m. by the Odeion foundation trench. In the small area that remains in the angle between the rectangular foundation and the wall bedding, the rock was dressed, but was left at a comparatively high level, perhaps to carry stone flagging; a similar bedding *ca.* 1.10 m. wide along the east side of both rectangle and wall bedding may have served the same purpose.

The peribolos wall consisted of a socle 0.45 m. thick, *ca.* 0.35 m. high, made of field stone and re-used building blocks, including a fragment of a marble Doric column capital; on top of this socle remain traces of sun-dried brick. The north wall lay parallel to the rectangular foundation at an interval of 3.40 m.; the east wall does



not quite align with the interior foundations, lying at a maximum interval of 1.60 m. at the north, less toward the south.

Although late disturbance has removed practically all the evidence, there is nothing to suggest that the monument with which we are here concerned ever extended as far south as the terrace wall of the Middle Stoa.

The excavation yielded no specific evidence for the date of the monument. The free use of conglomerate in its foundations, however, would preclude a date earlier than the late fifth or early fourth century B.C.; it was obviously dismantled by the Odeion builders in the time of Augustus. The purpose of the monument is obscure.

Another tantalizing remnant of a pre-Odeion monument lies beneath the west part of the orchestra (Pl. 16). All that remains is a single large block of hard, cream-colored poros measuring  $1.60 \times 0.95$  m. with a preserved height of 0.35 m. Its top, however, had been cut down an undeterminable amount by those who laid the orchestra floor. In the footing trench at the side of the block lay a few working chips of white marble, probably Parian, of good quality, deriving no doubt from the preparation of the plinth that must have rested on the massive bedding block. The material of the large block would suggest a date in the archaic period. Another slight indication of an early date is given by the orientation of the block which diverges slightly from that of the Odeion, approximating rather that of the Altar of the Twelve Gods and of the Panathenaic Way.

The prominence of the site suggests that the monument was of some importance. It may have been carried off by the Persians or, if still standing when work began on the Odeion, it may have been removed and set up again elsewhere by the Odeion builders.

Deep exploration beneath the central part of the Odeion revealed abundant evidence of early habitation: scattered sherds of the Middle Helladic period, a shallow well of the time transitional between the submycenaean and protogeometric periods, a pit packed with broken pottery of the eighth century B.C. and a well of the seventh century. The latest regular deposit of a household nature dated from the early sixth century B.C.; soon after that time, presumably, the area began to be used for public purposes.<sup>1</sup>

#### FIRST PERIOD

##### *General Scheme of the Building (Pl. 20)*

The diagrammatic plan of the foundations brings out at once the curiously dual nature of the building (Fig. 2). It consists first of a central core comprising the auditorium, dressing room and lobby essential to a theatre. Flanking the core to east,

<sup>1</sup> *Hesperia*, XVI, 1947, p. 202. On the plan (Pl. 16) the submycenaean well is marked "a," the eighth century pit "b" and the seventh century well "c."

west and south is a second element that has been interpreted as an outward-looking balcony supported on a basement storey. Since the floor of the balcony lay at the same level as the terrace of the Middle Stoa, the balcony might be regarded simply as an extension of that terrace. The principal entrance to the auditorium would seem to have led in from the south via the balcony and the lobby. There was originally a small porch on the axis of the north façade; this was intended no doubt for the performers, perhaps also for distinguished visitors.

The foundations of the inner rectangle are markedly heavier than those of the outer. They carried the massive wall that enclosed the auditorium proper and retained the earth filling beneath its benches. These are the only foundations in the building of sufficient width to receive the three series of large columns which are attested by surviving fragments. We have accordingly incorporated these large columns in a second storey rising above the auditorium in the core of the building, two series of them in the periphery of the inner rectangle, one on the dividing line between auditorium proper and lobby.

The outer rectangle of foundations, as we know from the remains at the south-east corner of the building, carried a comparatively light wall of limestone blocks; since the foundation is uniform in width and of the same strength on all four sides, this wall is presumably to be carried all round the building. A study of the cross section (Pl. 19) will show that the balcony together with its basement rose only to the same height as the lower storey of the central core, allowing the upper storey of the mid part to stand clear.

The layout of the building is based on the column spacing of the main order. Although no column base remains in place and no architrave is preserved to its full length, the spacing may be recovered on the assumption that the cross-wall and the line of columns dividing auditorium from lobby aligned with pilasters in the side walls; the general proportions of the order show clearly that the breadth of the lobby comprised two column spaces, each of 3.83 metres. This spacing results in eight pilasters across the ends of the building, ten on the long sides, the interval being equal on all four sides. In Pl. 17, it will be seen that the auditorium proper forms a square of seven spaces to the side; the stage is one space wide; the orchestra measures two by five spaces; the north porch measured on its stylobate is two spaces wide; the balcony, from centre to centre of its foundations, was intended to be two spaces in width but, in consequence of a change of plan during construction, was slightly widened. It is to be noted further that the two middle stairways on either side of the axis of the auditorium are directed toward a pilaster in each case, although this meant laying out the stairways from a centre different from that employed for the benches. Even the altar in the orchestra would seem to have been placed with respect to the pilasters rather than at the mid point between stage front and first bench.



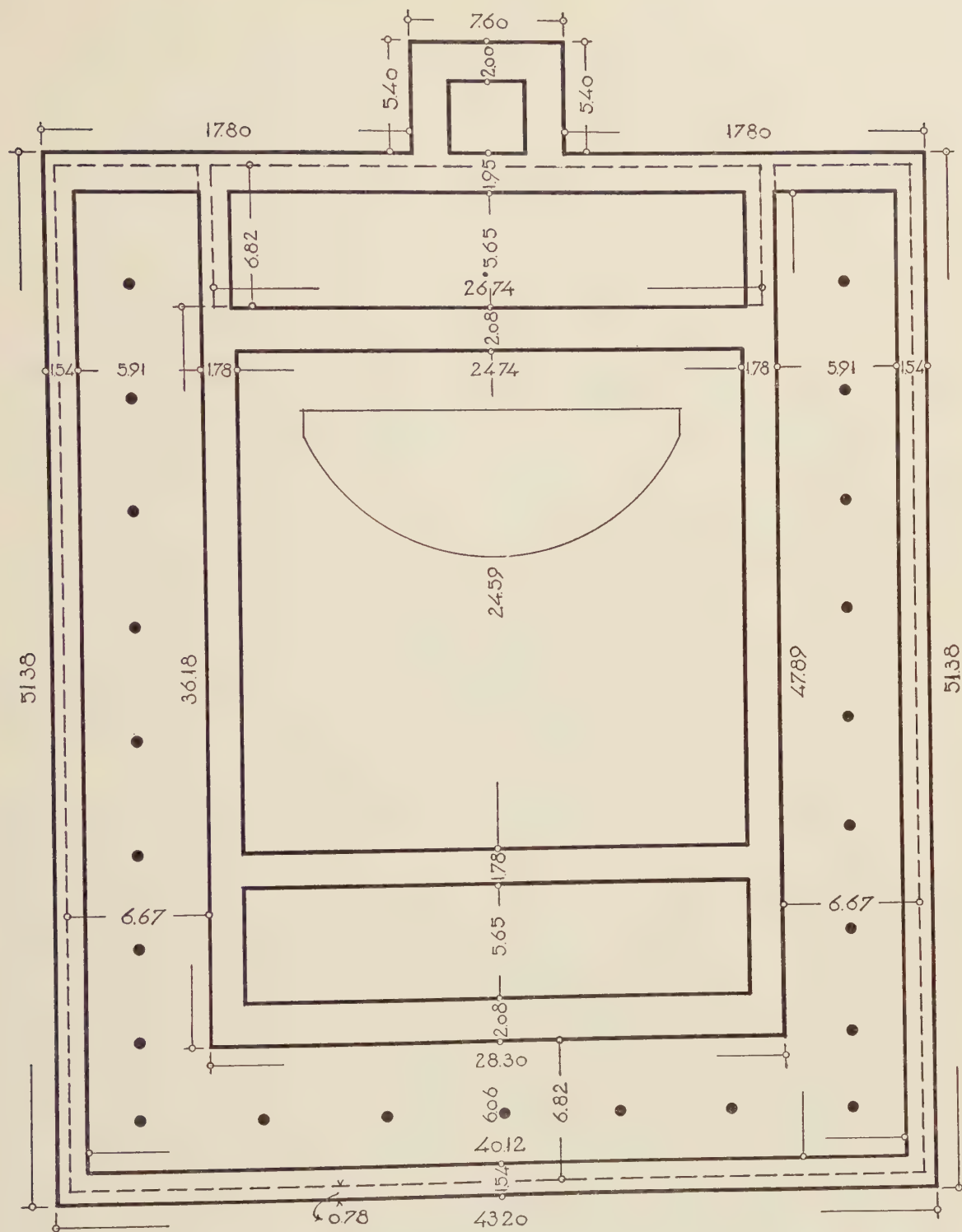


Fig. 2. Diagrammatic Plan of the Odeion

The north-to-south section (Pl. 18) will show how skilfully the levels of the building were adjusted so that the top of the cavea, the floors of the lobby and of the balcony corresponded with the terrace of the Middle Stoa while the floor of the north porch was reached by the canonical three steps from the undisturbed floor of the square. The earth scooped out in sinking the orchestra and the basement of the balcony was employed directly for the support of the seats in the cavea and the floor of the lobby.

### *Foundations and Walls*

The inner rectangular foundation enclosing the auditorium and lobby is of exceedingly massive construction (Pls. 27a, 42b). It consists throughout of solid limestone masonry in blocks that vary considerably in shape and size. The courses normally alternate between headers and stretchers, each course being either of headers or of stretchers; in the south foundation, however, near its east end a change occurs within the same course, in consequence, it would seem, of two groups of workmen coming together from opposite directions. Everywhere the masonry is set down in the bedrock, along the south side to a depth of one or two courses, at the north to a maximum of three or four courses. The north and south foundations are appreciably wider than the east and west. This is clear from a glance at the plan (Pl. 16), but, more specifically, the guide lines which were incised on top of each course to assist in the laying of the next course are 1.78 m. apart on the east and west, 2.08 m. apart on the north and south. There is nothing to suggest, however, that the walls varied in thickness above floor level; the heavier foundations to north and south may have been intended to take the extra weight of the tympana at the gable ends of the building.

The east to west cross wall between auditorium proper and lobby was more lightly founded. The foundation trench was cut in bedrock, to be sure, but its bottom lies some 0.60 m. above that of the trenches for the east and west foundations of the rectangle. The lower 0.60 m. of the trench was filled with a packing of field stones bedded in clay on which the lowest course of blocks was laid (Pl. 26b). The levels were arranged so as to permit bonding between the cross wall and the east and west walls. The trench and the stone packing are 2.00 m. wide and could thus have supported a wall equal in width to the other walls of the inner rectangle. Not a block of the cross wall was found in place. The excavation showed clearly that the blocks had been systematically removed in antiquity and the resulting trench filled with a firm packed mass of gray clay. We shall find reason to believe that in the later history of the building this wall was shifted northward a distance of two column spaces; the new foundation will be described below (pp. 99 ff.).


In the inner rectangle of the building no wall blocks remain above floor level nor have any loose blocks been recognized. The outer face of the wall, i. e. the face



toward the corridor, in the lower storey would undoubtedly have resembled in construction the outer wall of the building; it would have consisted, that is, of heavy poros blocks with plastered faces.

The foundations for the outer wall of the building in their lowest parts are 1.75-2.00 m. in thickness (Pls. 27b, 50b). In the south side and over much of the east and west sides the massive limestone blocks were set down in the bedrock to a depth of one course below the floor level of the corridor. Across the north and in the northern part of the west side the foundation trench, cut down in the bedrock to a depth of as much as 1.50 m., was filled in its lower 1.20 m. with a packing of field stones bedded in clay identical with that used below the cross wall between auditorium and lobby. On top of this packing were laid the first squared blocks of limestone. The blocks were laid in alternate courses as headers and as stretchers, but the masonry is not massive. In the stretcher courses there is a continuous row of blocks on either side, the space between being packed with broken stone, while in the header courses the dressed headers alternate with transverse masses of similar packing. At ground level the construction changes to massive masonry.

The foundations for the porch set against the north façade are identical in construction with those for the north wall of the main building, comprising both squared blocks and packing of broken stone (Pl. 29a). The contemporaneity of porch and north wall is confirmed by the fact that they interlock.

Over most of the south side of the building and for some distance along its east side the first visible course of wall blocks remains *in situ*, while at the southeast corner four blocks of the second course are also in place (Pls. 27a, 50b). The wall here consists of a single row of limestone blocks laid as stretchers.<sup>1</sup> Most of the joints in the first course along the south side and one in the east side are secured by means of  clamps (cf. below p. 83); there are no clamps in the surviving blocks of the second course and no trace whatever of dowels. The inner face of the wall is covered with plain stucco.<sup>2</sup>

The plan (Pl. 16) and the cross-sections (Pls. 18, 19) will reveal evidence for a significant change of design during the construction of the outer wall of the building. As already noted, the foundations for this wall are 1.75-2.00 m. thick and on the east side, near the southeast corner, the guide lines incised on top of the lowest course are 1.54 m. apart. The wall proper, however, as we have seen, measured only 0.78 m. thick and rests on the extreme outer edge of the foundation, leaving the inner half

<sup>1</sup> Height of first course, 0.40 m.; of second course, 0.46 m. Thickness of blocks without stucco, 0.73 m.; with stucco, 0.78 m. Length of blocks, 1.20-1.50 m.

<sup>2</sup> The stucco consists of two layers with a total thickness of *ca.* 0.05 m. The undercoat contains sand, gravel and pounded tile; the finishing coat consists largely of coarsely ground marble. The surface was smoothed but not polished; it is plain white in color and shows no trace of decoration either moulded or painted.

of the foundation unused. The blocks of the upper wall that remain in the south and east sides are unquestionably in place and show no sign of disturbance. The floor packing of firm earth 0.10-0.15 m. thick that overlies dressed bedrock runs unbroken above the unused inner portion of the foundation, making contact with the lower edge of the stucco on the face of the wall. Nor is there any evidence to suggest that the excessive width of foundation was intended, or at any rate used, for the support of buttresses, benches or the like. It seems probable, therefore, that the upper wall was originally intended to have the thickness of two rows of stretchers, i. e. 1.54 m. It is to be noted that had this design been carried out the interval from centre to centre of the walls on the inner and outer rectangles of the building would have been 7.57 m. on east and west, 7.66 m. on the north and 7.87 m. on the south, thus approximating very closely the sum of two column spaces of the main order of the building ( $2 \times 3.83 \text{ m.} = 7.66 \text{ m.}$ ). The change in plan occurred just as the foundations reached ground level, and certainly before the bases were laid for the small columns in the basement of the balcony since those bases are centred not between the lower foundations that bordered the basement but between the faces of the upper walls.

The significance of the change of design for the outer wall can only be a matter for conjecture. It is conceivable, for instance, that the original plan envisaged the use of columns or an arcade supported on one or more steps around the basement storey of the balcony, as in the theatre of Marcellus or the Colosseum at Rome.

A second, though less significant, change occurred during construction in the placing of the south foundation of the building. The plan (Pl. 16) and photograph (Pl. 24) will show that at the southwest corner of the building the trench for its south foundation was originally carried up to the very face of the terrace wall of the Middle Stoa over a length of 7.70 m. from the corner, whereas the south edge of the foundation was actually kept 0.50 m. north of the terrace wall. The excess cutting was never used. It may have been intended to receive a drain like that which was actually inserted at the southeast corner of the building (cf. pp. 77 f.). More probably the architect originally intended to lay his south foundation close against the face of the terrace wall, but, on running into ground water at the southeast corner, decided to insert a drain there, and, in consequence, to avoid undermining the terrace wall, shifted his whole building 0.50 m. northward. It is to be noted that this shift aggravated the intrusion of the northeast corner of the Odeion on the earlier monument in that area; the foundation blocks of the monument had to be cut back to admit the corner of the Odeion foundation. To assure more space between the superstructures of the two buildings, the Odeion was then shifted westward 0.40 m.; so much is indicated by an unused and a used setting line on the tops of the lowest blocks of the Odeion foundation at the north end of its east side.



*Superstructure of the Central Part*

## Columns

The evidence for the restoration of the shell of the building is derived chiefly from the few surviving marbles, above all from the fragmentary remains of a series of square pilasters with curtain wall between them and two series of free-standing round columns. Despite slight differences in dimensions and style, all three series undoubtedly derive from the main order of the Odeion.

The pilaster capitals are represented by a single well preserved specimen (A 599) which was discovered incorporated in the concrete foundations of the Gymnasium at a point 4 metres north of the Odeion near its northwest corner (Pls. 30, 31). It is a corner capital, its height 1.073 m., the breadth of its resting surface 0.92 m. The design is simple and bold; the tendrils spring from two series of acanthus leaves; the central floral motif is broken away but may be restored from a better preserved capital of the second series. The dressed beddings on the top of the capital indicate that the architrave was cut in two blocks, each 0.49 m. in thickness. The top exhibits neither dowel nor lewis cutting and only a single pry hole. Two adjacent faces of the capital were of normal design; the other two faces retain, both of them, the starts of curtain walls set at right angles to one another.<sup>1</sup> The projection of the pilaster from the face of the wall was 0.10 m. greater on the outside than on the inside of the building (0.265 : 0.165 m.).

Several scraps of the pilaster bases were recovered from the concrete foundations of the Gymnasium; the two most significant appear in Pl. 33b, the larger (A 1152 *a*) from near the northwest corner of the Odeion, the smaller (A 1152 *b*) from the south central part. The profile of the larger is shown in Fig. 3, left. The weathered state of its surface shows clearly that A 1152 *a* comes from the exterior face of the pilaster while the fresh, though broken, surface of A 1152 *b* marks it as from an interior face. On each of the fragments there remains the spring of a return which indicates that the base mouldings were carried along the orthostates of the curtain wall between the pilasters both inside and outside the building. The return is also invaluable in that it indicates the projection of the pilaster from the face of the wall at its base. It will be noted that the projection outward was 0.32 m. as compared with 0.22 m. inward, the difference corresponding precisely with that attested by the capital.

Of the pilaster shafts no remains have been certainly identified, although two or three small fragments found near the southeast corner of the building may come from this member.

<sup>1</sup> In one case the projecting spur carries down to the bottom of the capital with a thickness of 0.44 m.; the other spur, 0.39 m. thick, stops short of the bottom and is replaced in the lower part by a joint surface 0.49 m. wide worked on the face of the capital. We have taken 0.49 m. to be the normal thickness of the wall.

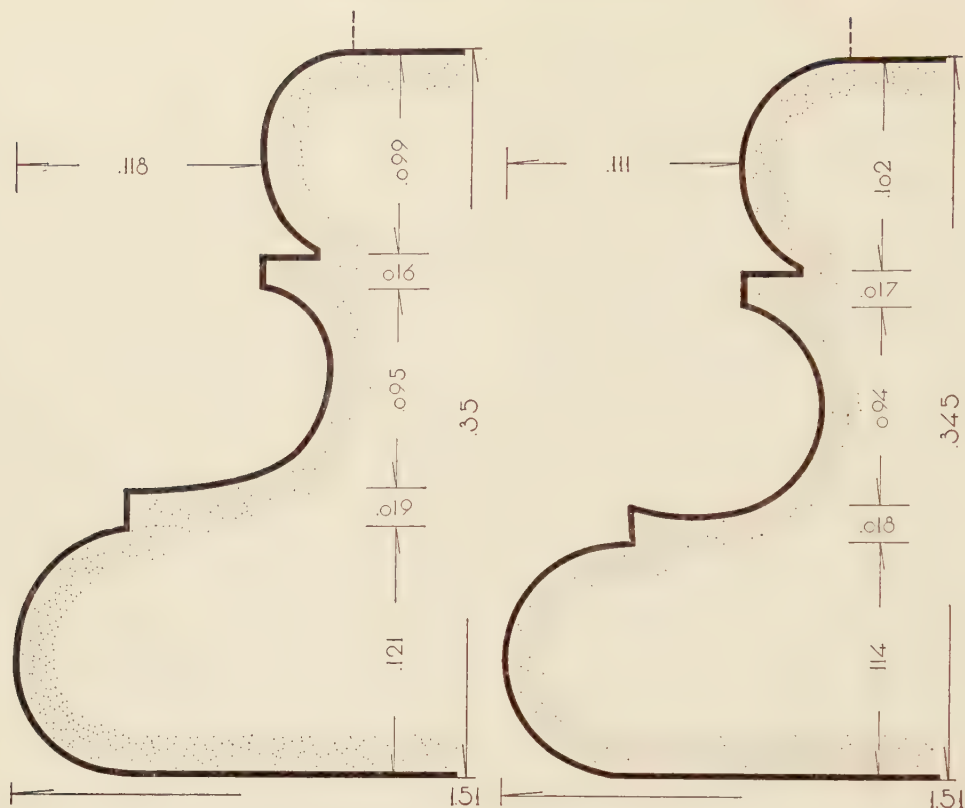


Fig. 3. Profiles of Bases: Left, from the Outside of a Pilaster (A 1152 a); Right, from an Inner Round Column (A 1150-1151)

The scheme of the pilasters and intervening curtain wall is illustrated in Fig. 4, together with the architrave as its disposition may be read from the top of the capital. It will be observed that the architrave was centred on the wall rather than on the pilasters, the interval between the two axes being 0.05 m.

Of the second series of large capitals no example has yet been found in the current excavations. We must depend instead on a specimen that came to light in 1890/91 in the cutting of the trench for the Athens-Piraeus Electric Railway (Pls. 32, 33a). This capital was removed to the National Museum and its missing parts restored in plaster.<sup>1</sup> Its height is 1.075 m., the diameter of its resting surface, 0.91 m.

<sup>1</sup> National Museum Inv. No. 1469. V. Staïs, *Guide illustré du Musée national: marbres et bronzes*, Ed. 2, Athens, 1910, p. 254; *Jahrbuch*, XXXVI, 1921, pp. 72 f., Beiblatt III, 8. For permission and facilities to photograph the capital I am indebted to Mr. Christos Karouzos, Director of the Museum. On top are the lightly trimmed beddings for an architrave cut in two blocks with a combined thickness of 0.96 m. At the very middle of the top surface are two lewis cuttings, one narrow and one wide, set across each other at right angles so as to form a Maltese cross; the duplication suggests a re-setting of the capital in antiquity. Two other lifting holes have been cut in modern times at some distance from the mid point.





Fig. 4. Outer Main Order, Restored

This capital rested on a free-standing round column. Its close correspondence in dimensions and in design with the capital of the square pilaster, combined with the fact that it is weathered on one side but fresh on the other, indicates that the capital was very closely associated with the square capital and stood in the periphery of the building.

With the round capital is to be associated a fragment of a round Ionic base (A 1396) found near the southwest corner of the Odeion (Pl. 35e, left).<sup>1</sup> Heavy weathering shows that the base too was exposed.

Of the third series of capitals three large fragments (A 471, A 536 and A 1154; the two last possibly from one and the same capital) were found in the destruction debris of the Odeion in the mid part of its south corridor; a fourth large piece (A 1153) lay beneath the concrete foundations of the Gymnasium in the bottom of the plundered trench for the east wall of the Odeion near its north end (Pls. 34, 35a and b). Smaller fragments, including several pieces of the mouldings from around the top of the capital, were found in various parts of the area, some lying loose in the earth, others imbedded in late Roman concrete. Many small scraps have also come to light in the area of the Stoa of Attalos whither they had been carried, no doubt, by the builders of the "Valerian Wall" in the third century after Christ. The combined evidence of these fragments permits the complete restoration shown in Pl. 34b. The diameter of the resting surface of A 536 may be measured as 1.00 m. from the scratched lines on two diameters of its underside. The overall height of A 1153 is 1.05 m., that of A 471, 1.15 m. The bell of the capital is decorated with lotus leaves springing from behind a single series of acanthus leaves. Although the scheme of decoration thus differs markedly from that of the pilaster capital, workmanship and style are very similar. One of the most characteristic of the minor differences between the series lies in the treatment of the central rib of the acanthus which is well rounded on the pilaster capital, flattened toward the bottom on the surviving round capitals.<sup>2</sup>

Of the bases to be associated with these round capitals many small fragments were found imbedded in the foundations of the Gymnasium. Two of the largest pieces (A 1150, 1151) are illustrated in Pl. 35e, middle and right, and serve as the basis for the restoration of the profile in Fig. 3, right. The overall diameter of the base may be calculated as *ca.* 1.51 m., its height as *ca.* 0.345 m. In profile the base of the round column is very close to that of the outer side of the pilaster, the only significant difference being that the lower lip of the scotia turns up in the case of the column, down in the case of the pilaster. The obvious reason was to prevent water lying in

<sup>1</sup> The fragment comes from the outer edge of the lower torus. Height of torus, 0.12 m.; estimated diameter, 1.51 m.

<sup>2</sup> At the middle of the underside of the capital A 536 there remains a fragment of a small iron dowel with leading; in the undersides of A 471 and A 1153 are cuttings for similar dowels (0.08 × 0.04 × 0.06 m. deep).



the pilaster base, one more indication that the pilasters stood in the outer wall of the building while the columns represented by the third series of capitals were inside.

The essential features of the round column shafts may be recovered from the surviving fragments. Several small pieces were found imbedded in the late Roman concrete foundations above the south central part of the Odeion; a large part of a drum, broken away at one end, lay near the middle of the west side of the Odeion (A 1146), while the best preserved piece came out of late foundations near the north-east corner of the Odeion (A 1145; Pl. 35d). This last piece is preserved to its full height of 0.91 m.; one side is broken away but the diameter of its top may be calculated as 0.974 m. from a measuring point at its centre. The drums were secured to one another by means of two iron dowels between each pair; there remain the rectangular sinkings and the pour channels which run obliquely to the radii. The smooth dressed joint surface forms a band *ca.* 0.20 m. wide around the rough-picked central area. The shaft was unfluted, its outer surface hammer dressed.

A very small fragment (A 1149) gives the profile of the roundel at the top of the shaft and another small scrap survives from the apophyge at the bottom of the shaft (A 1147).<sup>1</sup>

With the available material it is impossible to establish by direct measurement either the upper or the lower diameter of the round shafts. Calculations, however, based on the measurement of small scraps from the top and bottom of the shafts, the resting surfaces of the capitals and the column bases indicate that the shafts of the round columns approximated closely those of the pilasters with a lower diameter of *ca.* 1.07 m. and upper of *ca.* 0.92 m. In our restorations we have adopted a scheme of proportions appropriate to the period of our building, viz. a column height equal to  $9\frac{1}{2}$  times the lower diameter of the shaft, i. e.  $9\frac{1}{2} \times ca. 1.07 = ca. 10.16$  m. The total height of the main order would then have been *ca.* 12.02 m.

Among the known fragments of round shafts it has been impossible to distinguish between those that might derive from the south end of the building and those from the interior cross colonnade. One might have expected the outside columns to be fluted but that this was actually the case appears improbable since no fragment of an appropriate shaft with fluting has come to light.

### Stylobate

Fragmentary blocks of Hymettian marble that may come from the stylobate of the main order have been found at various points around the building, both lying in the earth and imbedded in the concrete foundations of the Gymnasium. The largest and most characteristic piece (A 1164) measures 1.00 m. in width and is finished

<sup>1</sup> A rectangular sinking in the side of one of the surviving fragments of drum (A 1146) may have served to secure a metal grill between the columns. It measures  $0.06 \times 0.03 \times 0.06$  m. deep.

with anathyrosis on each of its long sides. The height is 0.435 m. Both ends are broken away so that the original length of the block must have been considerably greater than its preserved length of 1.26 m., and may well have been as much as the  $\pm 1.60$  m. required by the base of the pilasters and columns.

### Architrave

Three large fragments from the architrave of the main order have been found, one (A 326) resting on the floor near the southwest corner of the building (Pl. 36e), the second (A 278) from a point to the west of the southern part of the building, the third (A 1382) from between the north end of the Odeion and the colossal figures. The architrave was made up of two blocks set back to back, each 0.49 m. thick on the soffit. In no case is the block preserved to its full height but very little will be missing from the top of A 326 inasmuch as the bottom of a clamp cutting is visible at one end of its broken top; the preserved height being 0.71 m., the original height will have been *ca.* 0.75 m. The face of the architrave is divided into three fasciae and crowned by the normal combination of cyma reversa and cavetto. Several fragments of the moulding have been found at various points around the building (Pl. 36b). On the top of the architrave is a setting line for the outer face of the frieze, indicating that the face of the frieze was in the same plane as the middle fascia of the architrave.



Fragment A 1382 of the architrave has anathyrosis along the lower edge of its back to assure a tight joint with the other half of the architrave; it may therefore be assigned to the freestanding columns. Block A 326 shows an open joint in the corresponding position and so must come from above the outer wall. The third piece (A 278) is broken at the crucial point.

### Frieze

Two small fragments may be assigned with fair assurance to the frieze of the main order (A 1383 *a* and *b*; Pl. 36a). They were found along the north front of the Odeion. Both come from near the top of the block and preserve a half round surmounted by an ovolo of a scale compatible with the mouldings of the architrave. They exhibit the characteristic tooling and anathyrosis of the Odeion marbles. The full height of the member is not known; it has been restored in Fig. 4 as *ca.* 0.54 m.

### Cornice

The best preserved piece of the cornice of the main order is shown in Pl. 36c; Fig. 5.<sup>1</sup> The top of this block is flat and weathered, hence it must come from the

<sup>1</sup> A 308. From the burnt debris overlying the floor of the building near its southwest corner. Length, 1.055 m.; height, 0.55 m. Broken away front and back. On the top toward the front a cutting for a  clamp, perhaps never used; farther back a cutting for a  clamp; in the middle of the top a cutting for a lewis. In the joint surface across the top of one end a mason's mark: A.



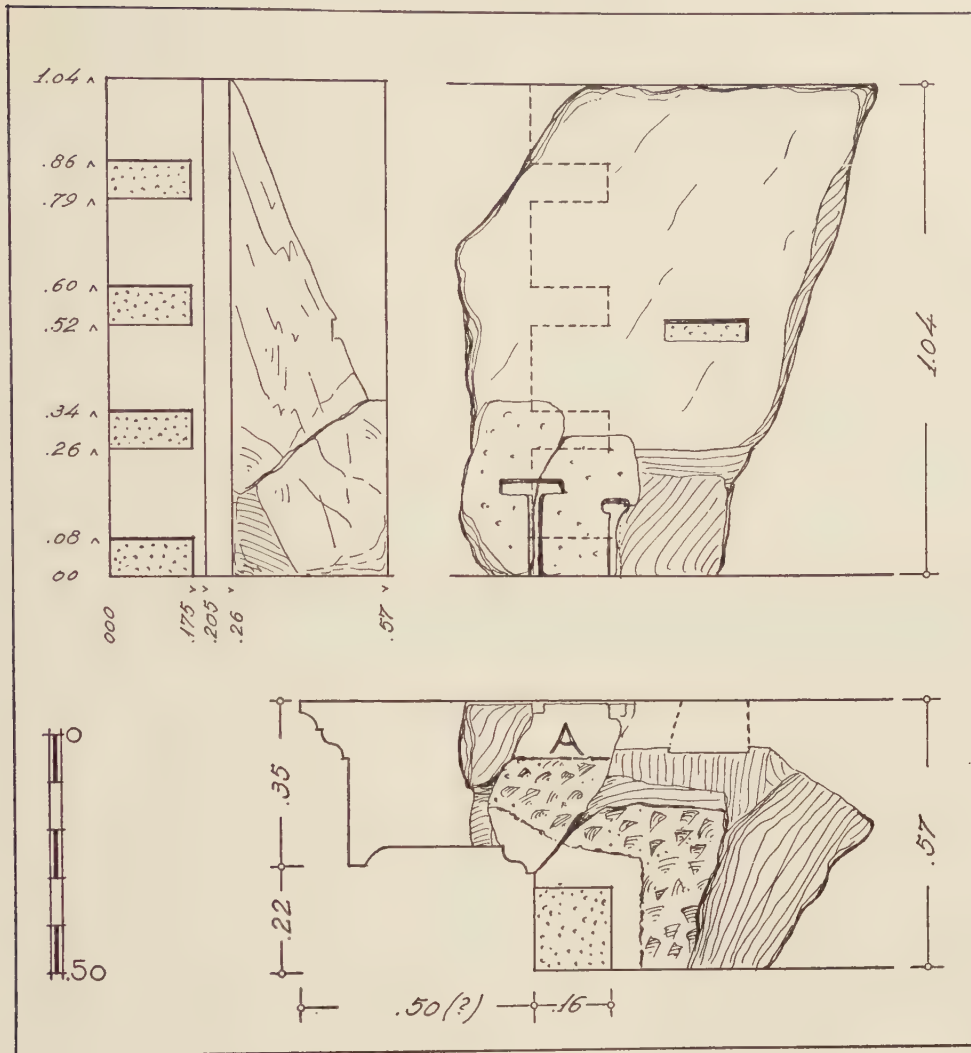


Fig. 5. Cornice Block from the Main Order (A 308)

horizontal cornice below a pediment. Another very small fragment (A 1196) found in the "Valerian Wall," has a sloping top, and so derives from a lateral cornice. Various small fragments, especially A 1163 and A 1302, preserve the crowning moulding and the beak of the corona. None of the pieces so far discovered gives the full projection of the corona, which has been arbitrarily restored in Figs. 4 and 5.

### Roofing

Great quantities of broken roof tiles were found in the course of the excavation throughout the whole area of the building, leaving no doubt that the entire structure, both the central core and the surrounding part, was roofed. The central part was

certainly covered with terracotta tiles; there is reason to believe that the outer part was roofed with marble at least toward the south in the later history of the building, possibly throughout in the original scheme. The broken tiles were found for the most part in the mass of burnt debris that immediately overlay the ancient floors. It is clear that the ruins of the building had been thoroughly ransacked for tiles after its collapse; not a single unbroken tile was found during the excavation. All the pieces of one eave cover tile have been recovered and put together, but of the terracotta pan tiles we have no complete specimen. From the fragments, however, it is possible to recover the scheme and dimensions of all the elements (Pl. 37; Fig. 6).

The terracotta pan tiles (Pl. 37b) were of a familiar type, with high lateral flanges, and a low water stop near the upper end of the top surface. The dimensions, as recovered from a combination of fragments, were *ca.*  $0.67 \times 0.56$  m. The cover tiles were gabled, *ca.* 0.19 to 0.22 m. wide, and presumably of the same length as the pan tiles. The antefixes show some variety in design, the principal variants being those illustrated in Pl. 37a. Their width is 0.23 m., their height 0.365-0.375 m. The clay of these tiles varies from buff to brown to brick red; it was tempered with coarse grit, and shows no trace of surfacing.

The following stamps occur on terracotta roof tiles found either in or immediately overlying the destruction debris of the Odeion and all may safely be associated with the building.

#### TILE STAMPS

##### 1. Α ΔΙΟΝΥΣΙΟΥ. Fig. 7, 1; Pl. 38a.

The stamp is enclosed in a rectangular frame ( $0.025 \times 0.10$  m.) and is normally clear and bold. The letters are sunken. The clay tends to be brick red in color and coarse in texture. This is by all odds the largest series from the Odeion; over one hundred examples have been catalogued and there are several hundred besides. Tiles so stamped have been found in all parts of the building. Several tiles bearing the same stamp have appeared at random in late contexts in other parts of the Agora excavations, salvaged no doubt from the ruins of the Odeion.

##### 2. Α ΔΙΟΔΩΡ[ΟΥ. Fig. 7, 2; Pl. 38b.

The stamp was shaped as a *tabella ansata* (0.032 m. high); the letters are raised but the stamp was very lightly impressed. Warm buff clay containing much coarse grit. A single fragmentary example (A 552) of a pan tile

was found near the middle of the auditorium; no other examples have yet been found in the Agora.

##### 3. ΑΓΙΤΥΡΟΥ. Fig. 7, 3; Pl. 38c.

The stamp was trapezoidal ( $0.038 \times 0.195$  m.); the letters raised but retrograde, engraved in the stamp by a wavering hand. All the impressions are faint. The clay is buff or light yellow in color and somewhat finer than that of the Dionysios series.

Fourteen examples of this series come from the debris of the Odeion (A 478, 504, 507, 541, 1384-1393); twelve of them from the southeast corner of the building, two from near the southwest corner. A pan tile bearing the same stamp was found in a context of the 3rd-4th century after Christ along the east front of the Metroon (A 415), and three small antefixes with the same name have come to light elsewhere in the Agora (A 1073, 1357, 1358). Pape (*Wörter-*



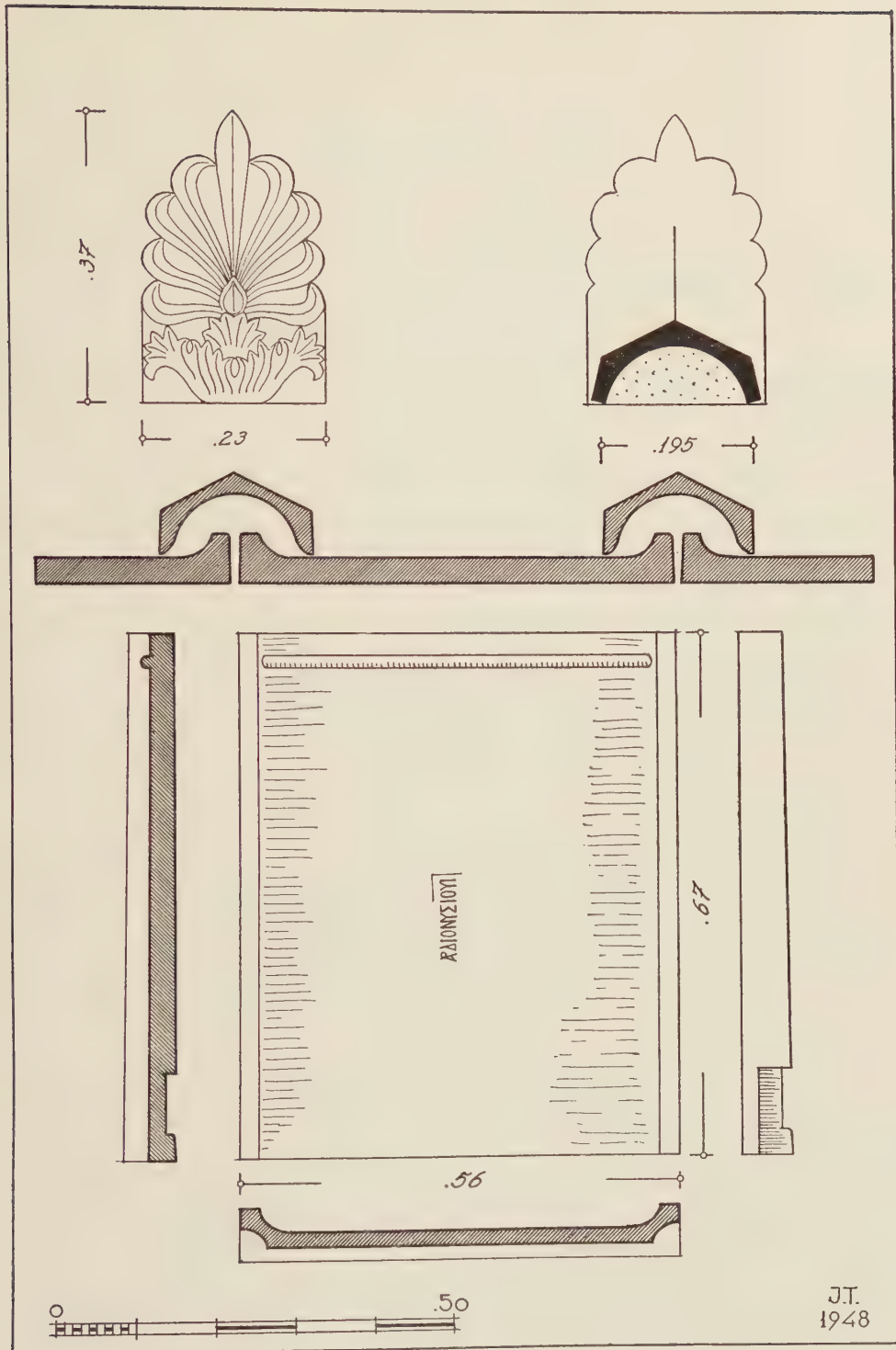


Fig. 6. Terracotta Roof Tiles

*buch der griechischen Eigennamen*, s.v. Αἰγίπυρος) records another antefix with this name in the collection of the Greek Archaeological Society.

4. ΜΗΔΕΙΟΥ. Fig. 7, 4; Pl. 38d.

The stamp ( $0.03 \times 0.19$  m.) was very carefully made and firmly impressed; the letters are sunken and retrograde. The clay is close to that of the Aigipyros series: buff and comparatively fine.

Two pan tiles of this series come from near the southeast corner of the Odeion (A 540, 544). Another tile of the series was once in the possession of the French consul Fauvel whose house and garden lay immediately to the east of the southeast corner of the Odeion. (*C.I.G.*, 542 a; *Hesperia*, XVII, 1948, Pl. 10. I owe the reference to Eugene Vanderpool).

5. Ἱερὰν Μητρὶ Θεῶν / Διονύσιος καὶ Ἀμμώνιος. Fig. 7, 5; Pl. 38f.

The rectangular stamp measures  $0.038 \times 0.188$  m. The letters, sunken, are carefully formed, though somewhat irregular in shape and size on account of the exigencies of spacing. The clay is buff or pale yellow.

Two examples come from the debris of the Odeion (A 329, 545), one from its southeast part and one from the southwest. A number of other tiles of the same series have been found elsewhere in the excavations, particularly in the area of the Metroon for which building they were obviously intended (*Hesperia*, VI, 1937, pp. 191 f.; Supplement IV, *The Tholos of Athens and its Predecessors*, pp. 150 f.). Tiles of this series also, reported to be from a grave on the Mouseion Hill, were owned by Fauvel (*I.G.*, II<sup>2</sup>, 4870; *Hesperia*, XVII, 1948, pl. 10).

Marble pan tiles were found exclusively in the south corridor of the building, most of them imbedded in the upper part of the mass of destruction debris that overlay the floor. No fewer than fourteen more or less complete examples, all broken, were found in this area, scattered across the whole width of the building (A 472, 473, 1183-1194). The marble tiles are of the same scheme as the terracotta, with lateral flanges and low water checks across the top (Pl. 39; Fig. 8). The dimensions vary slightly, the width being normally 0.60 m., the length 0.79 to 0.83 m. There is also a striking difference in workmanship. Some tiles show the characteristic plain but honest craftsmanship of the original Odeion construction; others are much coarser. These discrepancies may be accounted for in part by repairs and replacements, which are clearly indicated also by the presence of clamp cuttings in one (A 1183) and a mason's mark on the underside of another (A 1184; Pl. 39c: ΔΙΓ in letters 0.02 m. high).

Of the marble cover tiles two fragments have come to light, one (A 1195) actually found in the "Valerian Wall" just south of the Stoa of Attalos, the other (A 1440) picked up in the area of the Stoa of Attalos where it too, no doubt, had been re-used in the "Valerian Wall." Their association with the Odeion is indicated by identity of marble and workmanship and by their precise correspondence with the weather stains on the pan tiles. The better preserved piece (A 1440) is illustrated in Pl. 39b, right, and in Fig. 8. It is gabled in section and 0.25 m. wide; the top surface is hammer-dressed and edged with a smooth band. The only remarkable feature about the cover tile is the presence in its lower end of a vertical slot, swallow-tailed in plan, clearly intended for securing an antefix.



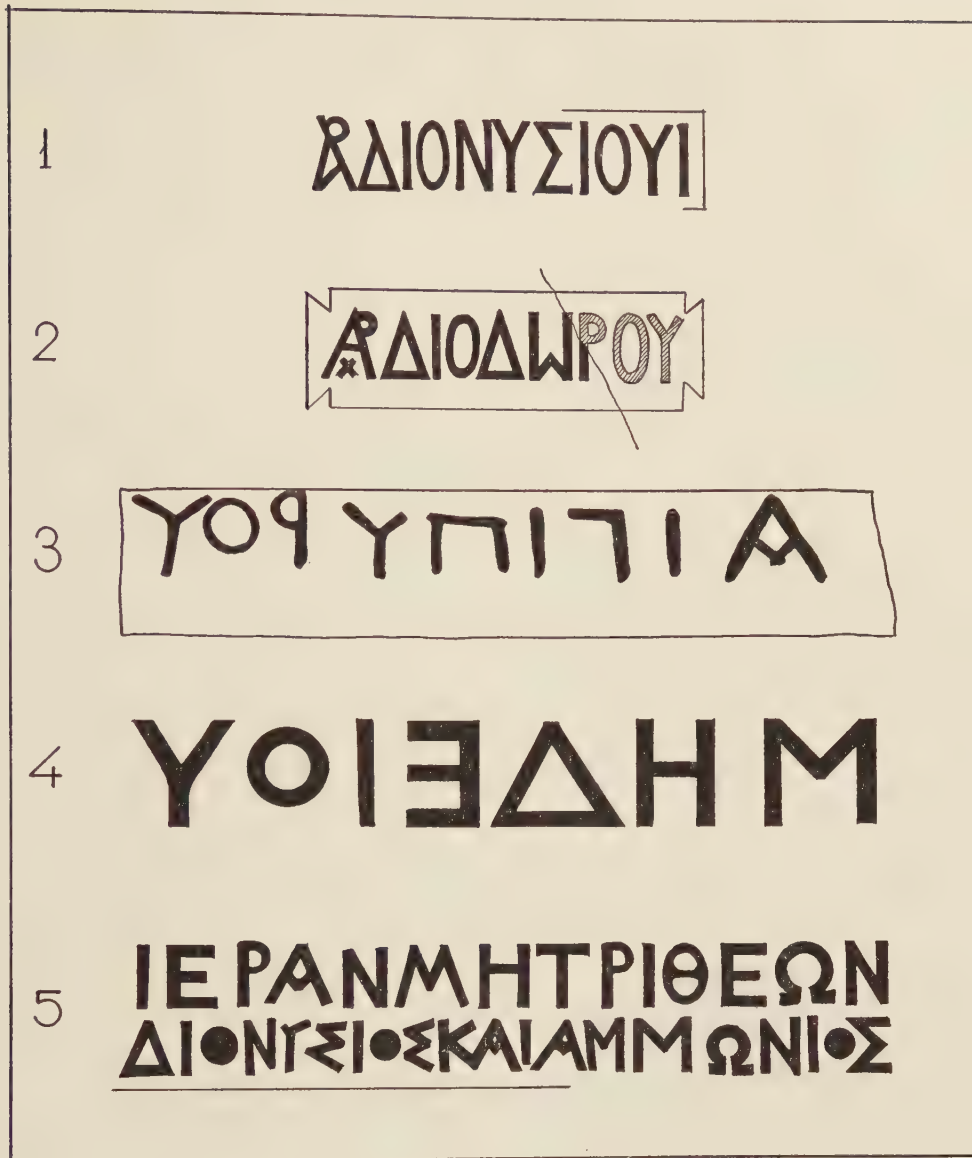


Fig. 7. Stamps on Terracotta Roof Tiles, Scale *ca.* 1 to 2

A whole series of marble antefixes of appropriate scheme is in fact available (A 170, 183, 553, 1012, 1182, 1405, 1406, 1420, 1421, 1427, 1435 and 1439; Pl. 39a and b). One of these pieces (A 1182), small but unmistakable, was found immediately to the north of the western part of the north façade of the Odeion in a level to be associated with a reconstruction of the Odeion in the second century after Christ. A second (A 553) came to light near the northeast corner of the Odeion, while the remainder have been found in the line of the "Valerian Wall" either within the

Stoa of Attalos or to the south of the Stoa. Apart from the evidence of provenance the association of these antefixes with the above-mentioned cover tiles is indubitably established by swallow-tailed keys in the backs of the antefixes which fit neatly into the slots in the lower ends of the cover tiles. The additional marble cutting involved in this unusual procedure was presumably more than compensated for by the saving

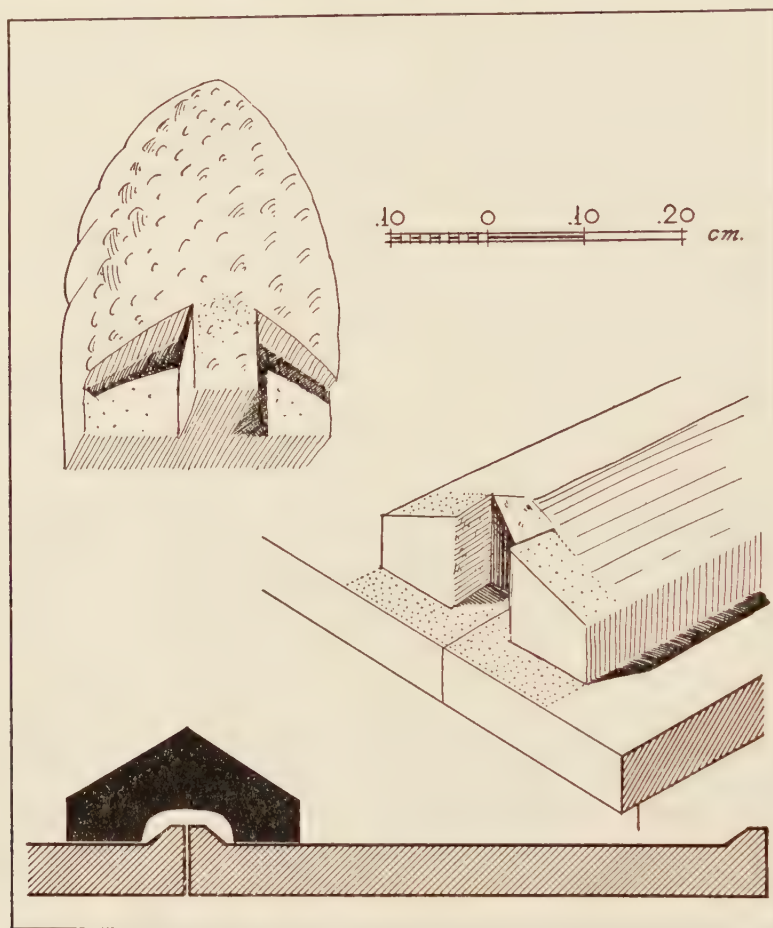


Fig. 8. Marble Roof Tiles

of marble and the greater ease of handling. The plastic palmette-and-acanthus design on the faces of the marble antefixes is basically identical with that on the terracotta antefixes, though many minor variations occur within the marble as within the terracotta series; the principal variants are illustrated in Pl. 39a.

As for the distribution of the terracotta and marble series, the vast number of the terracotta tiles found throughout the central part of the building makes it abundantly clear that the main structure was roofed with terracotta at the time when the



building was finally destroyed. The presence of the thirteen Aigipyros tiles which, as we shall see below, are contemporary with the original construction of the building, renders it virtually certain that terracotta was used on this roof in the first as well as in the latest period. Since the marble pan tiles were found exclusively in the basement of the south balcony we may with assurance assign them to a position directly overhead. That the balcony on all four sides was roofed with marble in the final period is unlikely. The one small fragment of marble antefix found just to the north of the Odeion undoubtedly derives from the original period but was discarded in the course of a reconstruction. However this may be, the well attested combination of marble and terracotta suggests that an effort was made to assimilate the Odeion to both its older neighbours, for the Middle Stoa was roofed with terracotta, the Stoa of Attalos, at least above its west façade, with marble.

For the most vital question connected with the roofing we have little evidence: how was the roof supported above the central part of the building over an open span of *ca.* 25 metres with no trace of interior columns? The quantity of charcoal and charred wood found among the debris from the final destruction, coupled with the fact that a building with stone walls and seats was susceptible of being burned, points to the presence of a great deal of timber in the roofing. The most probable solution is the use of the self-supporting triangular truss which appears to have been known to Vitruvius, a practising architect of the period of our building.<sup>1</sup> We may perhaps assume the employment of a horizontal wooden ceiling.

### Disposition of the Main Order

It will be well to pause for a moment to establish in somewhat greater detail the distribution of the various elements in the main order of the building as represented especially by the three series of capitals.

The columns are large, the lower diameter of the shaft being *ca.* 1.07 m., the diameter of the base *ca.* 1.51 m. This consideration alone at once rules out many of the available foundations. We have already seen that of the outer foundations the southern, the eastern and so, by inference, the western also supported walls only 0.78 m. thick which could not possibly have sustained such heavy columns. The north outer foundation, to be sure, is 1.95 m. thick at ground level and we have no direct evidence for the thickness of the upper wall. We have a satisfactory indirect indica-

<sup>1</sup> The technical terms used by Vitruvius are *transtra* (cross beams) and *capreoli* (braces). In his general note on roofing Vitruvius recommended the use of this combination where the span was considerable (*de Architectura*, IV, 2, 1: *sub tectis, si maiora spatia sunt, et transtra et capreoli, si commoda, columnen, et cantherii prominentes ad extremam suggrundationem*) and he himself employed the same design in his basilica at Fano in which the nave had a span of 60 feet (V, 1, 9: *quibus insuper transtra cum capreolis columnarum contra corpora et antas et parietes pronai conlocata sustinent unum culmen perpetuae basilicae*).

tion, however, from the carefully laid marble floor in the scaena; the symmetrical restoration of this floor shows at once that the original north wall must have been of the same thickness as the south, east and west outer walls, i. e. *ca.* 0.78 m., so that from this position too the heavy columns are excluded.

We are thus left with the inner rectangle and the two cross walls as possible places for the large columns. The fortunate preservation of the great square pilaster capital (A 599) helps tremendously in the problem. It is a corner block and its place of finding assigns it immediately to the northwest corner of the building. The spurs cut on the sides of this capital show, moreover, that the north and west sides of the main part of the building were closed with walls, undoubtedly strengthened at intervals by other pilasters. Considerations of symmetry leave no doubt that the east side also was similarly closed. The argument from symmetry, however, does not apply to the south side so that we are free to place there the second set of capitals, viz. those with the normal acanthus decoration, uniform in design with the square capital and, like the square capital, weathered from outside exposure, but intended for round, free-standing columns. By a simple process of elimination the third series, which comprises the capitals with the combination of acanthus and lotus, must be assigned to one of the interior transverse foundations; it will be remembered, moreover, that these capitals are fresh and show no sign of weathering. Inasmuch as the southern of the two transverse foundations is undoubtedly an integral part of the original design and was subsequently replaced by the northern foundation, we may assume that the third set of columns stood first on the south and then on the north transverse foundation. The significance of this shift for the history of the building will be considered below.

We may take it as established, therefore, that the central core of the building was enclosed on the north, east and west sides by a thin wall reinforced at intervals with Corinthian pilasters projecting both inward and outward. On the south side an open Corinthian colonnade admitted light which found ready access into the auditorium through the second transverse row of columns that separated the lobby from the auditorium (Pl. 20b). This flood of light from the south was supplemented, no doubt, by windows set between the pilasters in the other three walls. Apart from some very small scraps of mouldings that may derive from the enframing of these windows, we have found no positive evidence either for their existence or their placing. Our restoration is based on the parallels provided by the west end of the Erechtheion in its later form<sup>1</sup> and the Odeion of Termessos,<sup>2</sup> in both of which the windows are preserved, as also by the Bouleuterion of Miletos<sup>3</sup> where windows have

<sup>1</sup> G. P. Stevens and J. M. Paton, *The Erechtheum*, Cambridge, Mass., 1927, pls. IV and XXXIII.

<sup>2</sup> Graf K. Lanckoroński, G. Niemann and E. Petersen, *Städte Pamphyliens und Pisidiens*, II, Vienna, 1892, pls. I and XIV, figs. 56-58.

<sup>3</sup> H. Knackfuss, *Milet*, I, ii, *Das Rathaus*, Berlin, 1908, pls. IV, V, VI and XIV.



been restored on good evidence (Pls. 40, 41). This scheme of lighting, simple as it may seem, must have been very effective, inasmuch as the light came chiefly from behind the spectators and fell full on the stage. In summer when the sun was in the north the direct rays would not have penetrated the south side of the building even at midday, while the winter sun, coming more from the south, would have afforded welcome warmth as well as light.

We may assume that the pediments, the existence of one of which is attested by the cornice block noted above (A 308), rose above the north and south ends of the central core of the building; the additional weight imposed by the tympana may indeed account for the greater width of the north and south as compared with the east and west foundations.

Another major problem in the reconstruction concerns the height at which the columns of the main order rested. At first glance one might have expected them to rise immediately from the level of the top of the cavea as in the Bouleuterion of Miletos. The evidence, however, precludes this solution. As we shall see below, the level of the top of the cavea can be calculated closely from the surviving seats; it rose only to the height of the basement storey of the surrounding balcony, a step above the level of the terrace of the Middle Stoa. Above this level rose the balcony proper which was certainly roofed as shown by the discovery of its marble roof tiles distinct from the terracotta tiles of the central core of the building. In order to assure the admission of as much light as possible through the southern colonnade, and also to protect the audience from both draft and noise, it would clearly have been desirable to insert a wall of sufficient height to carry the bases of the main columns above the roof of the balcony. That this was actually done is shown by the weathering on the bases both of the square pilasters and of the round columns from the south end of the building.

For the more precise determination of the height at which the columns of the main order rested the evidence is indirect. The analogy of the best preserved comparable buildings, viz. the Bouleuterion of Miletos and the Odeion of Termessos, suggests that the upper and lower storeys should be restored approximately equal in height. In the building at Miletos, for instance, the height from the ground level in front of the building to the top of the stylobate of the upper order is equal to the full height of the upper order measured from the top of its stylobate to the top of its horizontal cornice. We have followed the same proportions in the restoration of the Odeion as illustrated in the section (Pl. 19). In the Odeion of Termessos, where the pilasters of the upper order stand on bases as in the Odeion, the height of the pilaster (shaft, base and capital) equals the height between the sills of the main entrance doors and the underside of the upper stylobate. This proportion also has been employed in our restoration.

Such a restoration meets the obvious requirements of our building. It permits of columns *ca.* 3.10 m. high in the balcony, i. e. of the same height as those in the upper storey of the Stoa of Attalos which undoubtedly served much the same purpose as our balcony. It allows of doorways *ca.* 3.50 m. high in the lobby of the Odeion (the comparable doorways in the Stoa of Attalos are 3.44 m.; at Miletos 3.00 m. and at Termessos 3.40 m.). And, finally, with a lower storey of such a height the cornice of the balcony just rises above the roof ridge of a north porch of reasonable proportions, a relationship which existed also in the Erechtheion between the main block and the north porch.

### *Auditorium*

#### General

In its original form the auditorium proper was square in plan, measuring almost exactly 25 m. to the side internally at the level of the top of the cavea. A long narrow stage, *ca.* 3 m. wide, carried across the full width of the auditorium. The orchestra was delimited by the arc of a circle with a radius of 10.17 m. drawn with centre at the intersection of the north-south axis of the building and the scaenae frons; the area of the orchestra was therefore less than a semicircle by the width of the stage. A small monument, probably an altar, rose near the middle of the orchestra. The cavea may be satisfactorily restored with eighteen rows of benches capable of seating approximately 1,000 persons. The seats were served by seven stairways, two of which ran parallel to the stage front while the remaining five were laid out on the radii of a circle with centre at the intersection of the axis of the building and the northern edge of the foundation for the scaenae frons. There is nothing to suggest a diazoma, and the comparatively large number of stairways was probably intended to obviate the need of such. The cross-section (Pl. 18) will show that the cavea had a remarkably gentle slope ( $3\frac{3}{4}$  in 10): dictated no doubt by the desire to have its top on a level with the terrace of the Middle Stoa, but at the same time to avoid sinking the orchestra to an excessive depth in the floor of the square.

#### Orchestra

Very considerable pains were taken in the construction of the marble floor of the orchestra. Over the whole area the soft bedrock was scooped out to a depth 0.25 m. below the intended level of the floor (Fig. 9). On the bottom of this shallow pit was thrown a layer of field stones of the size of a man's fist. Next came a layer of tough gray mortar, another layer of stones, another layer of mortar, and in the surface of this mortar were bedded the marble slabs.<sup>1</sup> The completed floor has a

<sup>1</sup> Cf. the specifications for flooring given by Vitruvius (VII, 1) and by Pliny (*N.H.*, XXXVI, 25, 186 f.) and the discussion by M. E. Blake (*Memoirs of the American Academy in Rome*, VIII, 1930, pp. 17 f.).



gentle inclination (*ca.* 0.02 m.) toward a drain hole at its northwest corner; otherwise, and apart from the violent disturbances of later times, the floor has remained beautifully true and level.<sup>1</sup>

The floor slabs were cut with the saw to a thickness of 0.01 to 0.03 m. To assist in the bedding of the marble, potsherds were first set in the surface of the soft mortar; these are clearly visible in the strip from which the marble slabs have been

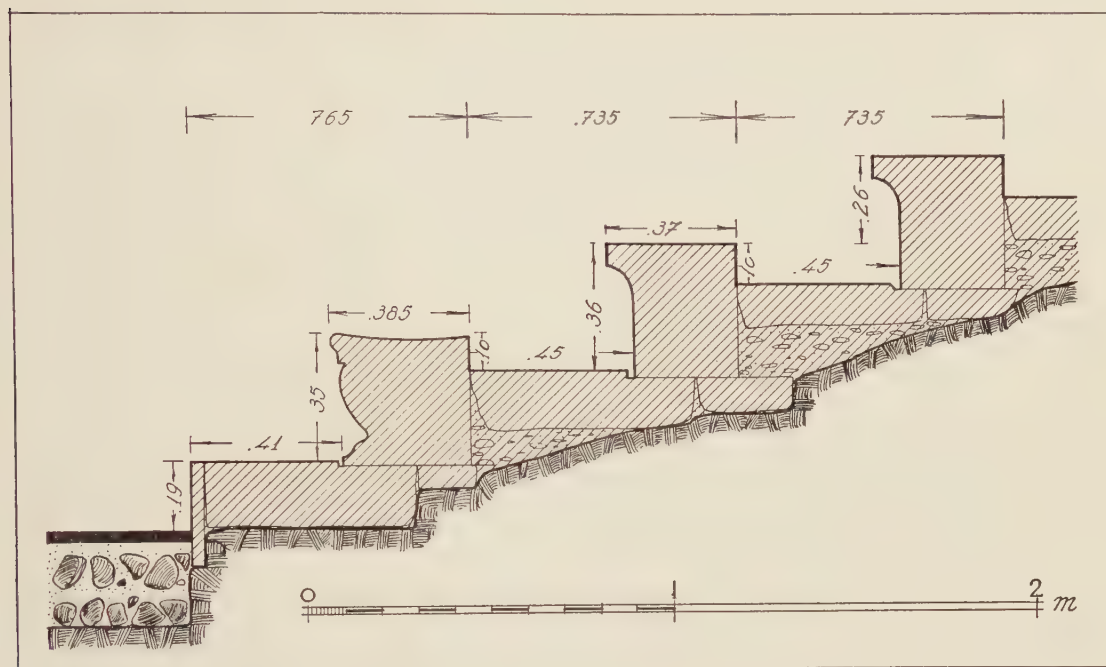


Fig. 9. Restored Section of Orchestra Floor and Benches

temporarily removed in Pl. 42a. The letter *alpha* was found incised on the underside of one of the small marble plaques of the original floor when it was lifted in the course of conservation (Fig. 10).

The orchestra floor was laid after the first row of benches and the stage front had been put in place. It will be clear from the section (Fig. 9) that the floor was carried up against a revetment of Pentelic marble slabs on the face of the step which carried the front benches. The revetment was then secured by bronze straps spaced at intervals of *ca.* 0.90 m.; their upper ends were hooked into the top of the step, their lower ends were set into the edge of the floor and both extremities were then fixed firmly with lead.

<sup>1</sup> Several of the marble plaques that were found in place by the excavators disappeared during the war years despite the fact that the floor had been roofed over. In the summer of 1946 many of the loose pieces were re-set and cemented in place by the skilful technician, John Bakoulis.

A wide variety of stone was used in the paving: white Pentelic marble; a gray-blue marble veined with white (probably Hymettian); green marble with white veining (probably from Karystos on Euboea); purple and white, pink and white marbles from the islands (Skyros or Salamis?); red and yellow limestones and a black, slate-like stone said to be found at Vytina in Arcadia and on Mt. Taygetos.



Fig. 10. Letter incised on Under-side of Orchestra Floor Slab

For the study of the design of the floor we have endeavored to make the evidence available in Pl. 43a which is based on a water-color rendering of the actual remains by Marian Welker. This is to be read in conjunction with the restoration of the original scheme as presented in Pl. 43b. It will be apparent at once that the floor was divided into three principal areas: a central rectangle flanked on either side by a triangle. These principal areas were outlined and separated from each other by a broad band of veined green marble. Each of the main areas corresponded to two of the six cunei of the cavea and the cardinal points of the design were very carefully related to the stairways.

The central rectangle of the floor was bisected longitudinally and each half was then treated in quite a different fashion. In the half toward the stage a square at either end was delimited by circles of plum-colored marble set at its corners while its mid part was filled by a panel of chevrons designed to suggest cubes. The colors of the chevrons are black, white, green and purple. The rectangular space between the two squares was devoted to the monument that formed the focal point of the whole orchestra. This monument was not centred on the floor; its axis falls some 0.30 m. to the east of the axis of the building.

The place of the monument is now marked by a horse-shoe shaped gap in the marble floor measuring  $1.10 \times 1.13$  m. (Pl. 42b). In the area of the gap the packing of small stones and mortar found elsewhere beneath the floor is replaced by a rough foundation made of irregular masses of Hymettian marble similar to those used beneath the benches. Traces of fine mortar on top of the marble floor along the west edge of the opening indicate that the monument extended some 0.07 m. beyond the cutting in this direction.

Almost certainly to be associated with the monument, presumably as the trim of its base, are several fragments of a delicately carved moulding of Pentelic marble (A 594; Pl. 47c). These were found among the burnt debris over the western part of the orchestra. The resting surface of the moulded member is preserved but not its top; the interaxial spacing of the ornament is *ca.* 0.117 m. The profile is a cyma recta and the face was decorated with an elaborate palmette design. Over part of its circumference the plan of the marble forms the arc of a circle with an outer diameter slightly greater than one metre. One of the fragments, however, preserves a trace of a corner which indicates that the curved side was adjoined by a straight side so



that the plan of the whole would have been semicircular. This moulded member may therefore have occupied the side toward the cavea while the remainder of the horse-shoe shaped space on the side toward the stage would have been filled with a plinth or a step.<sup>1</sup>

The position of the monument would be thoroughly appropriate, of course, to an altar. Its shape, on the other hand, would be unusual in an altar. We have thought it best, therefore, to indicate the existence of the monument on the general plans in a purely schematic way by means of a circle.<sup>2</sup>

In the half of the rectangle that lies on the side toward the cavea a central feature was provided in the shape of a rectangular panel set transversely. The panel was made up of paired slabs of veined, plum-colored marble sawn from the same block and opened like the facing pages of a book so that their veining forms a symmetrical pattern. To east and west the panel is bordered by a row of lozenges alternately black and white, to the north by a band of black and white triangles. The small lateral rectangles to either side of the panel have been disturbed by late replacements to such an extent that the restoration suggested in Pl. 43b cannot be regarded as quite certain. It appears highly probable, however, that the motif of three squares set diagonally within each other forms part of the original design here as elsewhere in the floor. The only plausible restoration that does not violate this evidence calls for the use of the inset-square motif throughout each of the lateral rectangles. It may be noted that the color scheme of the inset squares is based on an alternation of brown and drab.

Each of the lateral triangles was bordered on the two sides of the angle that pointed toward the cavea by a single line of the inset-square motif with the same color scheme as in the central rectangle. In the right-angled corner of each triangle was set a rectangle, and each of these rectangles was filled in turn by a cross worked out in mottled marbles against a white marble ground.

Extensive replacements were made in antiquity particularly in the middle and southern half of the central rectangle where the design consisted so largely of intricate motifs executed in small thin plaques and where traffic was heavier than on the stage side of the orchestra floor. By comparing Pl. 43a with Pl. 43b one will note at once

<sup>1</sup> A very similar base moulding appears on a neo-Attic altar in Naples (*Hesperia*, XVII, 1948, pp. 139 f., pl. 34, 3). Cf. also the grave altar of Publius Aelius Demetrius, probably of the second century after Christ, from Athens (J. Stuart and N. Revett, *The Antiquities of Athens*, III, London, 1794, p. 25; A. Conze, *Die attischen Grabreliefs*, IV, Berlin and Leipzig, 1911-22, 2154, pl. CCCCLXXIII).

<sup>2</sup> In the middle of the floor design in the orchestra of the theatre of Dionysos lies a large marble slab with a round sinking, 0.505 m. in diameter, in its surface; this would seem small for an altar (E. Fiechter, *Das Dionysos-Theater in Athen*, I: *Die Ruine*, Stuttgart, 1935, p. 57, pl. 9). The familiar round block in the orchestra at Epidauros on which an altar is commonly restored measures 0.71 m. in diameter (W. Dörpfeld and E. Reisch, *Das griechische Theater*, Athens, 1896, p. 124).

that two of the small circles to the west of the central monument were replaced with panels of chevrons and squares. It will also be apparent that the lateral rectangles of the southern half of the principal rectangle came to be filled with a disagreeable hodgepodge of remnants of the old inset-square motif supplemented by intrusive chevrons and squares. Prominent among the replacements are limestone plaques of a deep brick-red color that seems not to occur in the original parts.

The replacements that we have noted above were probably necessitated by normal wear and tear. The excavation, however, revealed large gaps in the floor where the slabs had been either broken or entirely removed. The mortar bedding thus exposed, as also the edges of the marble slabs around the gaps, had been worn smooth by traffic. This condition would seem to have been caused by some violent damage, most likely the collapse of the roof, after which the floor had remained unrepaired but had continued in use until the final destruction of the whole building by fire.

### Cavea

The greater part of two sections of the front bench were found in place at the east side, a small fragment of one section toward the west (Pls. 44, 45a). A scrap from the lower part of a bench of the second row remains in place in the west side, and enough fragments of another bench from one of the back rows were found to permit a complete restoration (Pl. 45a and b). Impressions in the earth left by benches and steps carried up in places to the fifth row (Pls. 22, 23).

The scheme of the benches will be clear from Fig. 9. All the seats, both front and back, were cut from solid blocks of Hymettian marble. The first row had a pleasing moulded profile in front and a comfortably scooped top; the upper rows had a much simpler profile and a flat top. The three surviving blocks of the front row measure 0.35 m. in clear height above the level of the footrest; the one surviving complete example of the back benches (A 1294) measures 0.36 m. and, since this agrees closely with the impressions left in the earth by other missing benches, the figure has been used for the restoration of the upper part of the auditorium.

The massive marble benches rested on marble slabs irregular in length, width and thickness; these in turn were bedded on the soft rock in the lower part of the cavea (the first four or five benches), on a packing of firm gray clay in the upper part. It will be noted in the section (Fig. 9) that the benches were set down in the marble underpinning a depth of one or two centimetres to prevent their slipping forward. The bedding blocks, which in their front parts served also as footrests, lay 0.10 m. below the top of the next lower bench, an arrangement which kept down the slope of the cavea and at the same time protected the backs of spectators from the feet of those behind them.

In all seven stairways only two step blocks remain in place, viz. the two lowest in the easternmost stair (Pl. 44b). These blocks are massive pieces of Hymettian



marble, laid with their tops level; the width of this stair was 2.50 m. The five middle stairs are now attested only by the impressions left in the earth and bedrock on their removal. The steps in these middle stairs were of thinner slabs, laid in such a way that one step corresponded to one bench.<sup>1</sup> The width of the third stairway from the west side may be measured with fair precision, *ca.* 0.75 m., from the dressings for the flanking benches of the first row as preserved on the top of the bedding block. The much greater width of the stairways adjacent to the stage suggests that they led directly to lateral entrances which, we have assumed, were reached from the north porch via the dressing room and the basements of the balconies.

On top of the footrest for the second row of benches, immediately to the right of one ascending the third stairway from the west, a large *beta* is roughly cut, clearly designating the second row (Pl. 45a).

The front edges and corners of the one surviving and tolerably complete example of a back bench (A 1294) show traces of breakage which had been smoothed off in antiquity so as not to chafe the legs of the sitters (Pl. 45b).

As a moulded plinth course to encircle the auditorium and lobby just above the level of the top of the seating space we have used an element now represented by a couple of fragments found between the north end of the Odeion and the colossal figures (Pl. 45c). The moulding consists of a cymatium with ovolo above and fascia below; the workmanship is characteristic of the first period of the Odeion.<sup>2</sup>

It is probable that the tremendously massive walls needed to support the columns of the main order were lightened by niches which would have been eminently suitable for statuary. We have restored such around both auditorium and lobby in the intervals between columns. A large corner orthostate block of Pentelic marble (Pl. 36d) found near the northeast corner of the Odeion in a much mutilated state may be interpreted as coming from the angle of such a niche and we have used it as the basis of our restorations in the sections (Pls. 18, 19).<sup>3</sup>

### *Lobby*

The long narrow room (*ca.* 5.60 × 25 m.) at the back of the auditorium may be thought of as a lobby or foyer, a convenient arrangement for the control of admission and a protection against the noise of traffic from the terrace of the Middle Stoa; a similar arrangement was employed in the Basilica of Pompeii. Since its walls have

<sup>1</sup> Slight indications in the clay bedding when first excavated suggest that the steps were not laid level as shown in the section (Fig. 9) but with a slope which would have reduced the height of the riser. Such a scheme was employed in the Theatre of Dionysos.

<sup>2</sup> A 1407. Height, 0.235 m. Neither the length nor width of the block is preserved.

<sup>3</sup> A 1168. Preserved height, 1.56 m. (top cut away). Width, 1.01 m.; thickness (giving depth of niche), *ca.* 0.95 m. A half successful attempt had been made by late vandals to cut the great block in two.

been stripped down to their lowest foundations and the earth filling that supported its floor has been removed to a level over 2.00 m. beneath its floor, the scheme of the room can be recovered only through indirect evidence (Pl. 17).

We have seen that the cavea as restored on the basis of surviving blocks and beddings rose to the level of the terrace in front of the Middle Stoa. Since this resulted in an auditorium of exceptionally gentle slope, the coincidence will not have been accidental. This consideration, combined with the limited capacity of the entrance from the north in the original period and the complete lack of evidence for any entrance from the sides, leaves no doubt that the principal entrance was intended to be from the south, i. e. from the terrace of the Middle Stoa, through the balcony, through the lobby and so into the auditorium. The distribution of the stairways in the auditorium calls for three doorways between auditorium and lobby. It will be observed that each doorway would have pierced the wall beneath an intercolumnar space of the main order, thus not interfering with the support of the columns. We have arbitrarily restored three corresponding doorways in the opposite wall, i. e. between lobby and balcony.

The analogy of the west end of the Erechtheion in its original form suggests that a low parapet ran between the round columns in the south end of the building. A fragment from such a parapet may be recognized in a small piece of marble found during the current excavations near the northeast corner of the Odeion (Pl. 45d).<sup>1</sup> It comes from the upper left corner of a slab the end of which was jointed to fit around the shaft of a smooth round column *ca.* 1.00 m. in diameter and was cut wedge-shaped so that it could be thrust firmly into place from inside the building. Against the column the parapet slab was finished with a slender pilaster crowned by a neatly profiled capital; the slab itself was capped by a low cornice with dentils. The outer face of the parapet is carved in a reticulate pattern and is heavily weathered.

### *Stage and Stage Front*

Since no trace of bedding for stone or marble slabs was found in the area of the stage, it may be assumed that the stage was floored, as usual, with wooden planks. It is assumed that this floor lay on a level with that of the dressing room, i. e. *ca.* 1.20 m. above the orchestra.

Of the socle for the stage front the easternmost block remains in place: a piece of gray-blue Hymettian marble moulded in front (Pls. 42b, 44b; Fig. 11). Much of the underpinning for the remainder of the socle has survived: small blocks of poros beneath the joints in the socle course, elsewhere a packing of field stones. In the tops of the poros bedding blocks are pry-holes but no dowel-holes.

<sup>1</sup> A 1404. Overall thickness, 0.14 m.; preserved length, 0.28 m.; preserved height, 0.165 m. The parapet has been indicated in the north-south section (Pl. 18) but not in the east-west section (Pl. 19) for fear of confusing the main lines of the restoration.



In the line of the stage front, in the extreme northeastern corner of the orchestra, is a re-used block of dark gray Eleusinian limestone with a sinking in its top for the reception of a marble statue that would have faced in slightly toward the axis of the auditorium. It will be observed from Pl. 44b that the bedding extends beyond the block of Eleusinian limestone into the first block of the plinth for the stage front so that one would be inclined to regard the statue and its base as a late insertion. Since,

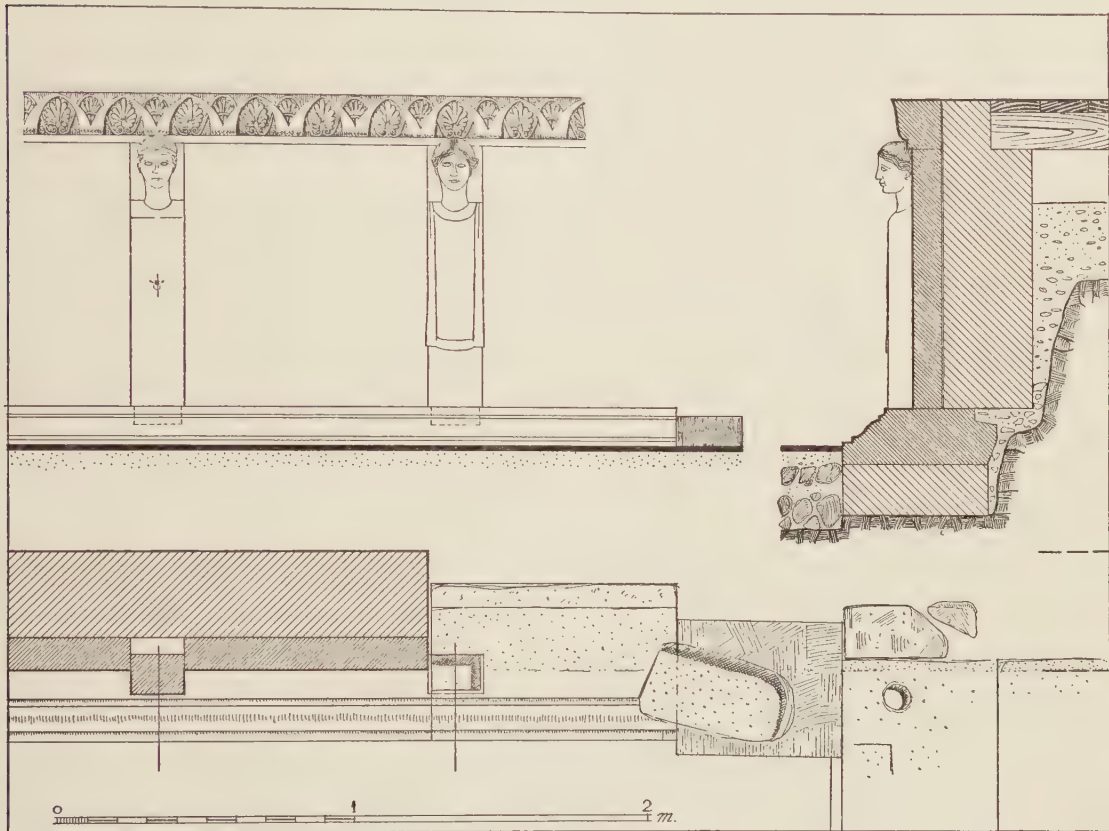


Fig. 11. Stage Front: Plan of Actual State, Restored Elevation and Section

however, there is no trace of disturbance in the orchestra floor, the arrangement may be taken as original. At the opposite (west) end of the stage front, an impression in the mortar bedding for the orchestra floor attests a corresponding statue base; this one, however, was cut from a single block.

The scheme of the stage front proper may be recovered from a few surviving marbles found chiefly in the debris that overlay the orchestra and from the cuttings in the one surviving block of the plinth. The outer ends of the joists for the stage

floor would seem to have been carried on a fairly heavy wall of rough masonry which was faced with a marble screen panelled with herms.<sup>1</sup>


Of the heavy wall nothing remains but traces of mortar on the back part of the top of the plinth, together with a little packing of broken stone behind the plinth. It will be observed in the section (Fig. 11) that the back of the plinth is rebated; it is quite possible that the lower ends of the wall blocks were cut with a corresponding notch which would have prevented them from being thrust forward by the pressure of the earth filling behind; a similar device has been noted in the seats of the auditorium.

Of the marble screen the essential elements are now available. No complete herm has come to light but one fragment from the upper part of the shaft was found in the area of the orchestra (S 1213) and one fragment from the bottom of the shaft in the Stoa of Attalos whither it had been taken, no doubt, by the builders of the "Valerian Wall" (S 1391; Fig. 11; Pls. 46, 47b). The shaft is of greenish white Karystian marble, dressed smooth on front and sides, rough behind, 0.185 m. wide, 0.14 m. thick. The lower end of the shaft is cut with a short tenon which fits neatly into a rectangular sinking in the top of the plinth; along the front and the two sides of this sinking is a setting line to mark the outer limit of the shaft proper. In the upper of the two fragments from the shaft is a socket for the reception of the pudenda which were presumably of bronze.

A shallow socket in the top of the shaft shows that the head was cut separately and attached. Three heads in a tolerably complete state and a fragment of a fourth are available for association with the herms (Pls. 46-49). All were carved from brilliant white Pentelic marble, at a scale of about three quarters life; two are female and two male. The two female heads (S 553 and S 554; Pls. 46, 48) were found among the burnt debris overlying the orchestra; the more complete male head (S 558; Pl. 49 a-c) comes from a level of the late Roman period some 15 metres to the east of the Odeion while the fragment (S 597; Pl. 49d) came to light in the area of the stage. Both female heads are heavily stained but not burned; the male head is deeply calcined; the fragment is fresh and crisp. The two female heads are of the same ideal, fifth-century, type: beautifully clean in design, utterly without expression, the hair parted in the middle and carried back in a wavy mass over either ear. The male heads also, so far as one may judge from their present condition, are of one type, with short flame-shaped locks and an encircling ribbon drawn low across the forehead (the more fragmentary head was jointed on the line of the lower edge of the ribbon); these two are clearly based on a fifth-century athlete type.

<sup>1</sup> Cf. in general the "Phaidros Bema" in the Theatre of Dionysos, described in detail by Fiechter, *Das Dionysos-Theater in Athen*, I: *Die Ruine*, pp. 41 ff. Perhaps also pertinent is Pollux, IV, 124: τὸ δ' ὑποσκήνιον κίονες καὶ ἀγαλματίους ἐκεκόσμητο πρὸς τὸ θέατρον τετραμμένους, ὑπὸ τὸ λογεῖον κείμενον.



The heads were cut in high relief against a rectangular plaque of marble of the same width as the shaft of the herm. The top of the plaque together with the back part of the top of the head were cut down in such a way as to form a ledge for the support of a horizontal member. In the top of the plaque are cuttings for two iron clamps of  shape, one leading off to either side, clearly intended to secure the herms to an adjacent member.<sup>1</sup>

These clamp cuttings in the tops of the herms have permitted the certain identification of one fragmentary example of the intervening slabs (A 1174; Pl. 46). The slab was cut from greenish white marble of Karystos like that of the shaft, smooth in front, rough behind. Only the upper left corner of the orthostate remains.<sup>2</sup> In the top of the slab is a clamp cutting that corresponds precisely in shape and placing with those in the tops of the herms and shows that the edge of the slab abutted directly on the side of the herm in such a way that the shaft of the herm projected about 0.08 m. beyond the face of the slab.

The crowning horizontal member above herms and slabs is represented by several fragments found among the debris above the orchestra (A 586; Pls. 46, 47a). The member had a sima-like profile richly and delicately carved with an interlacing lotus and palmette design. Neither the original height nor width is preserved. If, however, a plain fascia be restored below, it will fit satisfactorily on the ledge in the tops of the herm heads. That little is missing from the back of the block is shown by the presence of a clamp cutting near the preserved back edge, intended presumably to secure the moulded member to the substantial backing wall. The top of the moulded member is slightly worn by traffic. We have assumed that the top of this member represented the floor level of the stage.

There is no direct evidence for the height of the stage. It may be taken as virtually certain, however, that the floor of the stage lay at the same level as that of the dressing room, which would mean that it rose *ca.* 1.20 m. above the orchestra floor. Such a solution would accord well with the slight indication given by the mass of packing in the area of the stage and would also result in satisfactory proportions for the herms.

Nor have we direct evidence for the spacing of the herms. In view of the thinness of the marble orthostates, however, the interaxial space could not have been great. We have restored the unit as 1.00 m., which permits of a panel almost square (0.82 m. wide, 0.89 m. high) and brings the heads into a satisfactory relationship with the

<sup>1</sup> The height of the heads from crown to chin is 0.18 m. in S 553, 0.17 m. in S 554 and 0.175 m. in S 558. The preserved height of the fragment (S 597) is 0.09 m., but its scale is identical with that of the other heads. The thickness of the plaque is 0.07 m. in S 553, 0.08 m. in S 554 and 0.045 m. in S 558.

<sup>2</sup> Thickness, 0.115 m.; preserved height, 0.46 m.; preserved width, 0.345 m. Found above the orchestra.

elements of the carved moulding above. This spacing also allows a herm to stand on the axis of the building, others to be centred on the principal north to south bands in the orchestra floor. Such a restoration would call for a total of 17 herms.

The restored drawings of Fig. 11 will make clear the syntax of the composition of the stage front; they will not, however, bring out the effect produced by the combination of various marbles: blue in the plinth, greenish white in the herm shafts and intervening orthostates, brilliant white in the heads and the carved crowning member.

The decorated part of the stage front may be assumed to have been bounded to right and left by the statues, the bases for which have been discussed above. Beddings and traffic-worn surfaces on the tops of the two surviving steps of the stairway in the east wing suggest that the marble facing, probably without herms, continued beyond the statues to the very corners of the stage, flanking the stairways. These stairways were so arranged as to permit communication between orchestra and stage as well as between orchestra and corridor. There is no trace, and little possibility, of there having been any other stone stairway between orchestra and stage although there may well have been moveable wooden stairs of the kind illustrated in the wall paintings of Pompeii.<sup>1</sup>

Of the scaenae frons nothing remains in place above the lowest foundations nor has anything from its superstructure been recognized. On the analogy of the Roofed Theatre at Pompeii, however, we may assume a modest treatment probably with painted rather than sculptural or architectural decoration.

### *Scaena*

The scaena or dressing room consisted of a single long room measuring internally about  $26.60 \times 6.70$  m. (Pl. 17). It was floored with marble slabs of which a few were found in place near the east end;<sup>2</sup> elsewhere the mortar bedding retains the impressions of the missing slabs and permits the recovery of the scheme of the floor. The major part of the floor was of white Pentelic marble but in either half of the long room a rectangle was outlined in blue. This floor resembles closely that of the orchestra in material and construction but is less solidly founded and less elaborately patterned.<sup>3</sup>

<sup>1</sup> M. Bieber, *The History of the Greek and Roman Theatre*, Princeton, 1939, p. 342. In the top of the first step of the stairway in the east wing, just to the east of the bedding for the statue, is a sinking in which some object was leaded and subsequently removed by careful chiselling (Fig. 11). Since there is no pour channel this must have been some comparatively small free-standing object rather than a dowel in a block. Its purpose is not apparent.

<sup>2</sup> These slabs were pulled out and scattered during World War II.

<sup>3</sup> Above the pre-Odeion surface of the square was thrown a packing, 0.20 to 0.50 m. thick, of working chips and gray clay. On the levelled top of this packing was laid a course of field stones the size of a man's hand and over these was poured the mortar bedding for the slabs.



A glance at the plans (Pl. 17) will show that the tripartite division of the floor would have corresponded with the conventional three doors leading to the stage. A comparison of the plans shown in Pl. 17, centre and right, will demonstrate further that doorways centred on the axis of the building and on the lateral panels in the floor of the scene building would in each case have been centred also between pilasters of the main order of the building, again a satisfactory correspondence. In our restored plan we have suggested a doorway in either end of the long room permitting communication with the lateral corridors and through them with the auditorium; for this, however, there is no positive evidence.

Near the southeast corner of the scaena are traces of a large pedestal that must have risen against the south wall of the room. The underpinning consisted of two rough pieces of marble set down in the bedding for the marble floor. Low vertical slabs of a white marble facing for the plinth were found in place by the excavators. The identity in material and workmanship between this base and the orchestra, and the absence of any sign of later disturbance, prove that the pedestal was part of the original construction. The overall dimensions of the base were about  $1.50 \times 1.80$  m. No trace of a corresponding pedestal was found at the other end of the room although the underpinning for the marble floor is sufficiently well preserved at the crucial point. The pedestal presumably carried a large statue, conceivably that which is now represented by fragments to be discussed below (pp. 79 f.).

The dimensions of the room and its marble floor suggest that it was regarded as a place of some importance beyond mere utility. It is to be noted also that the small columns which supported the balcony in the corresponding spaces on the other three sides of the building do not occur in the north chamber. We have therefore assumed that the balcony did not carry across the north front of the building but that the scaena rose through the full height of the balcony and its basement. Such a restoration would accord well with the presence of a porch against the north façade (to be described below) and with the scale of the statue to be restored in the southeast corner of the room.

#### *North Porch and Monument Bases*

On the axis of the Odeion and adjacent to its north façade are the foundations of a small rectangular structure that can scarcely be interpreted as anything other than a porch (Pl. 29a). The overall width of the foundation was 7.60 m., its projection from the face of the wall 5.40 m. In material and construction the foundation is identical with that of the north wall of the Odeion and since, moreover, the two foundations interlock, there can be no doubt of their contemporaneity. At some time in the history of the Odeion the porch was dismantled and most of its material was removed, including even some of the lowest foundation blocks. The pits left by their

removal were filled with firm packed gravel and with working chips from the construction of a series of seven stairways that replaced the porch. There remain in place, therefore, only some ten blocks of the lowest foundation course and the trenches which give us the complete outline of the structure.

A consideration of the section (Pl. 18) indicates that the difference in level between the area to the north of the porch and the floor of the scaena could have been made good by a euthynteria and three steps around the porch together with an additional single step between porch and scaena. Since the foundation is of the same width on front and sides, a prostyle arrangement is indicated, undoubtedly with four columns. In our restoration (Pl. 59) we have had in mind the porches on the Tower of the Winds.

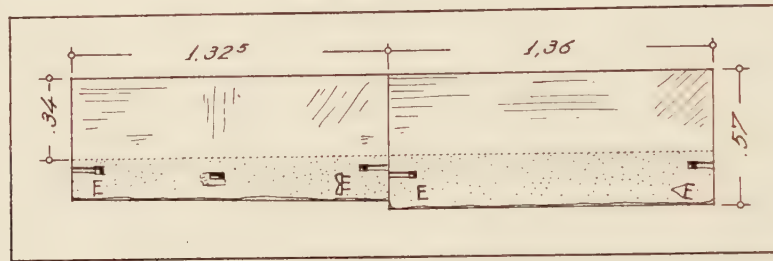


Fig. 12. Re-used Step Blocks, Perhaps from the North Porch

Nothing of the stonework of the porch from above ground level has been found unless it be several blocks that were re-used in a series of statue bases set against the north façade in conjunction with the seven stairways that took the place of the porch. Among this material are five blocks of poros which were employed as orthostates in the second from the east of the series of statue bases and a sixth in the westernmost pedestal of the same series. The most characteristic piece is that which now forms the north end of the second pedestal from the east (Pl. 28b).<sup>1</sup> In its material, in the shape of its clamp cutting and in the narrow *Werkzoll* along the outer edge of its original top surface this block is identical with the blocks in the euthynteria course of the large monument base at the northeast corner of the Odeion which is certainly an integral part of the original construction. It is tempting therefore to regard the block of Pl. 28b as from the euthynteria of the original north porch of the Odeion.

Two of the marble step blocks of the original north porch may be recognized with some degree of probability in the lowest step of the first stairway from the east

<sup>1</sup> The block is of gray-brown poros, and measures  $1.125 \times 0.67 \times 0.29$  m. A clamp, a dowel and a pry cutting in its original top all date from the original use. A mason's mark in the shape of a large gamma was cut by the re-users in the same surface. Another block of the same original series re-used in the same pedestal is marked with a rho.



in the series of seven later stairways (Fig. 12). The blocks are of Hymettian marble and well worked. Each has a clamp cutting at either end, one a dowel cutting in the middle, all from the original use. Each block is lettered at either end, a clear indication of re-use. In their original, as in their secondary, position these blocks served as steps. The width of the tread in the original use, as shown by the positions of the cuttings and by the tooling, was *ca.* 0.32 m., the height 0.29 m.<sup>1</sup>

It seems probable, therefore, that when the original small porch on the axis of the building was removed to make way for the series of seven stairways with flanking statue bases the material from the porch was re-used in the construction of the new stairs and the pedestals.

At either extremity of the north façade of the building are foundations for large monuments, undoubtedly contemporary with the original construction. The monuments, like the columnar porch, must have enlivened the otherwise dull expanse of the wall.

The eastern monument base was clearly intended to be a square, 5.73 m. to the side, but the necessity of avoiding the northwest corner of a large earlier monument that flanked the Panathenaic Way obliged the architect to swing the north end of the new base slightly in toward the axis of the Odeion (Pls. 16, 17, 28a); the aberration would scarcely have been perceptible in antiquity.

Of this eastern base there remain *in situ* two courses of heavy poros blocks, apparently continuous throughout the area of the base; several blocks of the upper of these two courses have been removed from near the middle in late times (Pl. 28a). The upper course is bounded on the three exposed faces of the foundation by a row of poros blocks, the outer faces of which were finished to be visible over their full height. Two pairs of these blocks in the north front of the base are bound to one another by clamps. The third (now missing) course was set back, as shown by weathering lines, about 0.16 m. from the edge of the second course on the north side where the evidence is accessible and presumably also on the east and west sides where the second course is now overlaid by late Roman concrete foundations. The careful dressing of the top of the second course suggests that the third was of marble, i. e. part of the marble facing around a core of cheaper material.

That base and Odeion are contemporary is shown clearly not only by similarity in material and workmanship but also by the bonding of their foundations which may be observed at the southwest corner of the base.

The size, the shape and the massive construction of the foundation at once suggest a chariot group which would have shown to splendid advantage rising

<sup>1</sup> Three marble step blocks remain in the sixth and seventh from the east of the series of seven late stairways along the north façade of the building; all of these are re-used blocks but none is of the same series as those illustrated in Fig. 12 and none can be associated with the porch.

against the front of the Odeion in clear view of those coming up the Panathenaic Way.<sup>1</sup>

A fountain flowed from the north face of the pedestal for the quadriga (Pl. 28a). Two rectangular beddings at the edge of the top of the second course of the foundation for the quadriga presumably carried supports for a pair of spouts which poured their water into a shallow basin measuring  $1.70 \times 3.30$  m. The floor of the basin pitched steeply from east to west toward a small drain hole at the middle of the west end; the depth at the east was 0.24 m. increasing to 0.35 m. at the west. The entire floor, the east wall and half the west wall of the basin remain, all roughly put together of re-used marble blocks. The basin was waterproofed by means of hydraulic cement of lime and pounded tile applied to the inner faces of the walls and to the junction of walls and floor. No trace has yet been found of the source of the water; it was brought, presumably, in lead pipes which normally vanish.

No specific evidence is available as to the time when the fountain was installed. Its rough construction would argue against its contemporaneity with the original period of the Odeion yet its symmetrical relationship with the quadriga base clearly implies that the fountain was erected while the monument was still intact. It may therefore be associated with the second period of the building.

The monument base at the west end of the north façade has fared worse than the eastern. All the blocks have disappeared, leaving only an impression in the earth. Since the pottery and coins found in the bottom of the pillaged foundation trench are of the fourth century after Christ, it appears probable that the last foundation blocks of the monument base were removed by the builders of the great Gymnasium about A.D. 400.

<sup>1</sup> The plinth beneath the actual statues of chariot groups in Athens normally measures about 3 metres across the front and a little more from front to back. When the group stood on a high pedestal the stepping of the courses meant that the lower foundations considerably exceeded these dimensions. One of the most pertinent parallels is provided by the tall "Monument of Agrippa," in front of the Propylaia; its lowest foundations measure  $5.23 \times 5.29$  m., its plinth  $3.095 \times 3.580$  m. (R. Bohn, *Die Propyläen der Akropolis zu Athen*, Berlin and Stuttgart, 1882, pls. II, XXI; W. B. Dinsmoor, *A.J.A.*, XXIV, 1920, p. 83). The chariot group erected on the Acropolis to commemorate a victory over the Boeotians and Chalcidians has been restored in its second position, with a pedestal two courses high, the lower course measuring *ca.*  $3.40 \times 3.60$  m., the upper course or plinth *ca.*  $2.95 \times 3.20$  m. (G. P. Stevens, *Hesperia*, V, 1936, pp. 504 ff.; A. E. Raubitschek, *Hesperia*, VIII, 1939, p. 158; *Dedications from the Athenian Akropolis*, Cambridge, Mass., 1949, Nos. 168 and 173). The front of the plinth for a bronze quadriga dedicated by Pionapes in the middle of the fifth century has been restored with a width of 3.00 m. (Raubitschek, *Hesperia*, VIII, 1939, p. 158; *Dedications*, No. 174). Two other near-by foundations in the Agora probably carried quadrigae, one projecting from the mid point of the terrace of the Stoa of Attalos (measuring  $5.70 \times 6.20$  m. on its lowest foundations), the other at the east edge of the Panathenaic Way between the Stoa of Attalos and the Library of Pantainos ( $5.20$  m. square measured on its foundations). Still another quadriga base may be recognized at the north edge of the great stairway by which one ascended from the Agora to the Hephaisteion ( $4.90 \times 5.80$  m. on its lowest foundations; *Hesperia*, VI, 1937, p. 219, fig. 126, p. 221).



The impression left by the blocks shows that the monument base was set close against the face of the north wall of the building, and that it had an overall north-to-south width of 2.40 m. The western end of the base would seem to have been aligned with the west side of the building. Eastward the end of the base is obscured by a late Roman foundation. It seems probable, however, that the long base, like the quadriga base, was placed symmetrically with respect to the balcony. On this assumption the base would have had an overall length of *ca.* 7.00 m.

We have no indication from the excavation as to the nature of the monument that stood on this base. The long narrow proportions of the base would suggest a row of statues, conceivably those of Philip, Alexander and the Epigonoï seen by Pausanias in front of the building (I, 8, 6 and 9, 4) but for this there is no direct evidence.

A narrow foundation consisting of a single row of heavy poros blocks may be traced along the foot of the outer face of the north wall of the Odeion between the central porch and the lateral monument bases and also along the foot of the east and west walls near their northern ends (Pl. 16). Identity of material and workmanship and the way in which the blocks are set against the main foundations of the building show clearly that they are part of the original construction. Those along the north façade were subsequently overlaid by the marble stairways and statue bases that were built here at a later date.

Between the columnar porch and the eastern base three blocks remain in place.<sup>1</sup> They rest on the dressed bedrock, but are not laid as deep as the lowest blocks of the main foundation nor do they course with that foundation. Eastward of the surviving pair of blocks there would appear to have been one more, but the line seems certainly to have stopped short of the great eastern monument base. Along the west side of the building a single block remains in position very near the northwest corner,<sup>2</sup> and a bedding for the southward continuation of the line of blocks extended 6.40 m. from the corner. On the east side advantage was taken of two blocks that had apparently been laid in error for the main foundation of the building (p. 42). Southward of these two blocks the bedding for the supplementary foundation could be traced, its maximum possible length being 8.00 m., its probable length being *ca.* 6.50 m., corresponding closely, that is, with the bedding on the west side of the building. The pottery from the trench left by the removal of the row of blocks on the east side would suggest that they were pulled out at the same time as the blocks along the north façade were overlaid by marble steps and monument bases.

There is no clear indication of the purpose of this foundation. Its comparatively

<sup>1</sup> They are of gray poros. The two eastern blocks, the tops of which have been cut down, measure 0.45 m. high, 0.48 m. wide, 1.24 and 1.18 m. long. The third, of which one end is missing, measures, 0.43 m. high, 0.48 m. wide, 0.78 m. long.

<sup>2</sup> The block measures 0.97 × 0.56 × 0.33 m. high.

shallow bedding shows that it carried nothing of great weight, certainly no structural part of the building. Perhaps the most plausible explanation is that it supported benches—very welcome in this busy part of the square.

### *Balcony*

We now turn from the central core of the building to consider the lesser elements to east, west and south. As noted above, we have proposed to restore here an outward-looking balcony or loggia supported on a basement storey (Pls. 19, 20).

The plan of the basement was simple and may be recovered with assurance. Along all three sides ran an open corridor, 6.67 m. wide on the east and west, 6.82 m. on the south, with a plain wall on either side. The inner face of the outer wall was covered with white stucco, and the opposite wall on the inner side, of which nothing now remains above ground level, was doubtless finished in the same way. Apart from the indirect access through the north porch and scaena hypothecated above (p. 69) no trace has yet been found of an entrance to the basement, although the more thorough exploration of the areas to east and west of the Odeion may reveal such.

On the mid line of the corridor stood a row of small columns for the support of the floor above, seven across the south, nine in each of the long sides. These columns rested on blocks of limestone or marble, rough and irregular in outline but concealed originally by the earthen floor. Although no complete shaft has been found, the stumps of nine still stand in place and the upper part of one came to light on the floor of the corridor near the southeast corner of the building (Pls. 24, 27a, 50a). The shafts are of coarse Pentelic marble, unfluted and hammer dressed. Their lower diameter is 0.40 m., the upper diameter 0.36 m.; they were probably monolithic.<sup>1</sup> No capital has been found suitable to these shafts.

Although the spacing of the columns varies as between the south side and the long sides and even within each of the sides, the second column from the south on both the east and west side was placed with great precision so as to align with the north wall of the south corridor. This was so arranged, no doubt, in order that a heavy beam might be carried across both the east and west corridors on this line, permitting the series of transverse joists to continue unbroken throughout the whole length of the south corridor. North of the same line both the east and west corridors would also have been overlaid by unbroken series of transverse joists. In all three corridors these joists would have been supported at their mid points by the continuous longitudinal beam carried by the small columns.<sup>2</sup>

<sup>1</sup> There is no trace of dowels in either top or bottom of the shaft; in the centre of each of these surfaces, however, is a mark for compasses.

<sup>2</sup> A similar scheme was followed in the South Basilica at Corinth (*A.J.A.*, XXXIX, 1935, pp. 60 f.; *Ancient Corinth, A Guide to the Excavations*, ed. 4, Athens, 1947, p. 65; *Hesperia*, XVIII, 1949, pp. 153 ff.).



We have no direct evidence for the height of the basement storey of the balcony. It would be clearly desirable, however, to have the floor of the upper storey on a level with the top of the cavea and hence with the floor of the lobby, as also with the terrace of the Middle Stoa. We have therefore restored it in our sections exactly on a level with the floor of the lobby and one step higher than the terrace of the Middle Stoa. This restoration puts the floor of the upper storey 3.55 m. above that of the basement, a dimension thoroughly appropriate to the scale of the basement columns and very close to that of the comparable basement storey around the South Basilica in Corinth.

The existence of a second storey in this part of the building is indicated both by the general desirability of having the balcony roofed and by the following specific evidence. On the floor of the east corridor, between the second and third columns from the south, was found the curious marble member (A 1158) that appears on the extreme left in Pl. 50a. A fragment of a second specimen came to light in the debris overlying the southwest corner of the building (A 1159). The complete example has the appearance of a plain square capital, its top projecting uniformly on all four sides. In plan it measures 0.49 m. square on top, 0.423 m. square on the bottom; its height is 0.345 m. The surfaces are all hammer dressed and exceedingly fresh. The key to the interpretation is given by the better preserved remains of the Abaton at Epidauros.<sup>1</sup> On the analogy of that building we are to restore on top of the round shaft of our column a capital of such generous breadth as to support on the middle of its top the square capital-like member and also to carry alongside that member the heavy beams that bore the joists. The purpose of the surviving member was to carry the marble column of a second storey without the intervention of wood between marble and marble. It is probable that there was only one column near the southeast corner and one near the southwest corner of the upper storey; elsewhere the full width of the corridor could easily have been spanned by joists unsupported in the middle and strong enough to carry a light wooden ceiling. This arrangement would have guaranteed the maximum freedom of movement and of view in the upper storey.

Since nothing beyond the roof tiles of the upper storey or balcony proper has yet been recognized, its restoration must depend largely on our conception of its function. Various possibilities may be considered. Were the balcony and the basement below intended to facilitate communications within the building? Only, it would seem, to a limited extent, viz. between scaena and orchestra on the ground floor and in the approach to the lobby on the upper floor level; neither in itself was enough to justify the construction of the balcony or its basement. Again, the balcony might be regarded

<sup>1</sup> Kavvadias, *Πρακτικά*, 1905, pp. 74 ff., fig. 17, pl. Z'. The two-storeyed addition to the Abaton in which this construction occurs is dated by Kavvadias simply "to the Roman period." It has much in common with our Odeion corridors.

as an additional foyer or promenade for the concert-goers, i. e. the equivalent of the colonnades which Vitruvius (V, 9) recommended to be placed within reach of the open-air theatre. For our building, however, the promenade space would have been inordinately large and in any case a promenade was already at hand in the Middle Stoa.

It seems preferable, therefore, to dissociate the balcony in function from the concert hall. If now we assume that the balcony looked outward rather than inward we may regard it as an extension of the terraces of the Middle Stoa and suppose that it was intended primarily for the same purpose as that terrace, viz. to provide a vantage ground from which great numbers of people might look down on spectacles, above all on the Panathenaic Procession as it made its way diagonally across the square immediately to the east of the Odeion. On this assumption we have restored an open colonnade to east, west and south and have carried it around the northeast and northwest corners up to the ends of the scaena. There must have been a parapet, of course, between the columns, and on the south side some means of controlling admission since, as one may infer from Vitruvius (V, 1, 2), the charge for admission to such desirable places on festival days was likely to yield a considerable revenue. The shape and spacing of the columns as shown in the restored drawings is purely schematic. The height of the order must have been great enough to permit doorways of appropriate height, say *ca.* 3.50 metres, between balcony and lobby. On the assumption that the roof of the balcony carried unbroken over the scene building its cornice was presumably high enough to run above the ridge of the north porch in somewhat the same relation as that between the central core of the Erechtheion and its north porch. To meet these conditions the total height of the order of the balcony (and of its ceiling) must have been about 4.00 metres. This is approximately the same scale as the upper storey of the Stoa of Attalos, a satisfactory correspondence.

What now was the function of the basement storey beneath the balcony? The breadth of the outer foundations suggests, as we have seen, that the original intention was to have an open colonnade at ground level as well as above. As actually carried out, however, the lower storey was very much of a basement, plainly finished and with only limited means of access. Such space could have served admirably for the storage of supplies against an impending siege, a possibility that must have occurred to the elder citizens who could recall the horrors of famine induced by Sulla's siege some 70 years before.<sup>1</sup> Or the basement may conceivably have been employed for commercial purposes as in the Building of Eumachia in Pompeii.<sup>2</sup> Actually, however, the very freshness of its floor, walls and columns indicates that this part of the building was very little used and it may well be that in the design of the Odeion as finally conceived it was regarded primarily as underpinning for the open gallery above. A

<sup>1</sup> On the question of making provision against siege cf. Vitruvius, V, 9, 8.

<sup>2</sup> A. Mau and F. W. Kelsey, *Pompeii, its Life and Art*, New York, 1899, pp. 110-118.



similar purpose was served by the cryptoporticus beneath the outer aisles of the Julian and South Basilicas at Corinth which are a few years later in date but very similar in dimensions and construction.<sup>1</sup> The principle was commonly employed also in the Campanian villas, e. g. the "Villa of Diomedes"<sup>2</sup> and the Villa of the Mysteries.<sup>3</sup> A similar combination of a closed lower storey and an upper storey is to be noted also in the addition made in the Roman period to the Abaton at Epidaurus.<sup>4</sup>

It is an interesting indication of the curiously dual nature of the Odeion in the Agora (inside auditorium, outside loggia) that in more normal buildings the corresponding cryptoporticus underlay the outer edge of the auditorium proper. Such an arrangement may be observed both in rectangular buildings, such as the "Gerontikon" at Nysa on the Maeander<sup>5</sup> and at Anemurium in Cilicia<sup>6</sup> and in semicircular buildings such as the Odeum at Corinth.<sup>7</sup>

### *Drainage*

A capacious terracotta drain protected the building from groundwater around its southeast corner where the foundations and even the floor of the corridor were set down deep below the surrounding ground level and where the soil tends to be soggy even today in the winter months.

This drain has its beginning along the south side of the Odeion, some 1.80 m. west of the southeast corner; after turning the corner in a right angle, it hugs closely the east foundation of the Odeion, running north to a point 9.00 m. south of the northeast corner of the building (Pl. 16). Here the drain now stops abruptly and no further trace of it has as yet been found. Further exploration may someday show that it turned eastward to avoid the large earlier monument adjoining the Odeion farther north; but it is quite possible that it never continued beyond its present end.

The stratification (Pl. 50b) shows that provision for the drain was made in cutting the bedding for the east wall of the Odeion. The tiles would seem to have been inserted between the laying of the second and third courses of the east wall; layers of working chips from the dressing of three successive courses of the wall still lie undisturbed above the drain at one point.

<sup>1</sup> *Art and Archaeology*, XIV, 1922, pp. 207-209; *A.J.A.*, XXXIX, 1935, pp. 60 f.; XLI, 1937, p. 549; *Corinth, Guide*<sup>4</sup>, pp. 51 f., 65; *Hesperia*, XVIII, 1949, pp. 153 ff. The cryptoporticus beneath the South Basilica was abandoned after a few years and filled with earth, which suggests that it was regarded as of no great practical value.

<sup>2</sup> Mau-Kelsey, *Pompeii*, pp. 349-354.

<sup>3</sup> A. Maiuri, *La Villa dei Misteri*, Rome, 1931, pp. 46 ff., 86 ff., Pl. D, figs. 36-38.

<sup>4</sup> Kavvadias, *Πρακτικά*, 1905, pp. 63-89.

<sup>5</sup> W. v. Diest, *Jahrbuch*, Ergänzungsheft X, 1913, *Nysa ad Maeandrum*, pp. 36-40; K. Kourouniotes, *Ἀρχ. Δελτίον*, VII, 1921-22, pp. 1-68, 227-241; W. A. McDonald, *The Political Meeting Places of the Greeks*, Baltimore, 1943, pp. 219-224.

<sup>6</sup> F. Mazois and M. Gau, *Les ruines de Pompéi*, IV, Paris, 1839, pl. XXVIII.

<sup>7</sup> O. Broneer, *Corinth, X, The Odeum*, Cambridge, Mass., 1932.

The drain channel is oval in cross-section and is made up of pairs of massive tiles, with a packing of field stones between them and the wall foundations.<sup>1</sup>

Another drain led northward out of the west end of the orchestra, apparently to provide for the convenient disposal of the water used in scrubbing the interior of the building; the capacity of the drain is too small to support any argument for an hypaethral auditorium (Pls. 16, 22).

This drain had its beginning 1.60 m. east of the west extremity of the orchestra and doubtless received its water through a small aperture cut in the socle of the stage front. The marble floor of the orchestra pitches toward this point with a scarcely perceptible slope (0.02 m. in the length and *ca.* 0.01 m. in the breadth of the floor). Between the line of the stage front and that of the north wall of the Odeion the drain was oval in cross-section, like that along the east side of the building. Beyond the north wall, where the ground level slopes downward, the large oval channel gives way to a small trough rectangular in section and covered with flat terracotta tiles.<sup>2</sup> The joints between the tiles, both the oval and the rectangular, are carefully sealed with hard white lime mortar. Alongside the oval tiles and above them is a packing of field stones imbedded in soft lime mortar. The drain can now be traced to a point some 30 m. north of the Odeion; it no doubt emptied into some large drain beneath the Panathenaic Way.

### *Incidental Sculpture*

As a prominent theatrical building of its period the Odeion must have been richly adorned with sculpture. We have already found some evidence of this in the sculptural decoration of the stage front; it remains to examine a number of incidental pieces.

A possible candidate for one of the bases at the ends of the stage front is a life-sized marble statue of Dionysos, found in 1935 built into a late wall some 27 metres to the northeast (Pl. 51).<sup>3</sup> The youthful god wore long locks, and over his left shoulder a skin clearly marked as that of a goat by the one surviving horn. The left arm is to be restored as resting on a support, doubtless a tree stump, the position of which is attested by the scar of a strut on the thigh and an imperfectly finished area on the hip. The right arm rose abruptly; its root is pressed so close to the neck as to suggest that the right hand rested languidly on the god's head: a common attitude with this divinity,<sup>4</sup> and one thoroughly appropriate to the situation.

<sup>1</sup> Interior measurements: 0.40 × 0.90 m. The tiles are 0.59 m. (two feet) long. Each pair was baked together in the kiln so as to ensure proper matching. The fall in the drain from south to north is 0.80 m. in a distance of 43 m.

<sup>2</sup> The sections of rectangular channel measure 0.64 m. long, 0.20 m. wide and 0.20 m. deep inside. The cover tiles are 0.21 × 0.34 × 0.04 m. thick.

<sup>3</sup> S 531. Cf. *Hesperia*, V, 1936, pp. 12 ff. Preserved height, 1.10 m.

<sup>4</sup> Compare, for example, a small marble statue of Dionysos in this pose found in the German excavations on the west slope of the Acropolis (*Ath. Mitt.*, XXI, 1896, p. 269).



Three fragments of a colossal marble statue found in the course of the current excavations around the north front of the Odeion may be associated with each other and may be assigned a place in the building with some plausibility. All are of Pentelic marble.

1. Part of a Foot (S 1220). Pl. 52b.

Found above the westernmost of the marble stairs in the north façade along with many chips from the breaking up of the architectural members of the Odeion. Maximum dimension of fragment, 0.31 m.; width of first three toes, 0.11 m.; width of great toe, 0.075 m.; thickness of plinth, 0.14 m.

There remains part of the first three toes of a left foot. The modelling is competent, precise, dry. The surface is so fresh as to indicate that the statue stood indoors. Its scale may be reckoned as approximately  $2\frac{1}{2}$  times life, its standing height, therefore, as about  $5\frac{1}{2}$  metres.

2. Fragment with Drapery (S 1305). Pl. 52c, lower.

Found *ca.* 10 m. north of the middle of the north façade of the Odeion. Maximum dimension of fragment, 0.94 m.

This is merely a flake from a rounded part, probably the hip, of a very large figure. None of the preserved surface, apparently, was intended to be visible: it is dressed in part with a point, in part with a narrow gouge and elsewhere is summarily smoothed. In the area finished with the gouge is a puntillo or measuring point.

3. Fragment with Drapery (S 1343). Pl. 52c, upper.

Found in the current excavations *ca.* 15 m. northwest of the northwest corner of the Odeion. Maximum dimension of the fragment, 1.00 m. Most of the surface is finished with a narrow gouge; some of it is summarily smoothed; the tooling is identical with that of fragment No. 2. The three holes near the middle of the marble mark the beginning of an attempt to break it up into smaller fragments.

In view of its rough surface the fragment must come from the back of the figure. It is perhaps most easily interpreted as from the back of the right shoulder with the stump of the right arm thrust well out.

The discovery of the two "flakes" of the statue in the vicinity of the north front of the Odeion points to that area as the place where the statue stood. These fragments presumably broke off when the statue first fell; that they were moved far in later times is improbable since they show no trace of re-use and each of them is a full burden for four men. The fresh condition of the foot, as already noted, makes it practically certain that the statue stood indoors. The only suitable bedding known

within the building is the rectangular base toward the east end of the scaena. The dimensions of this base ( $1.50 \times 1.80$  m. at floor level) would be appropriate to a standing figure of the scale of ours, i. e.  $2\frac{1}{2}$  times life size, and such a position, in which the statue would have been backed close against a wall, would account satisfactorily for the rough state of the surface of our two large fragments.

As for the identification of the figure, it is tempting to regard it as "the statue of Dionysos worth seeing" noted by Pausanias inside the Odeion (I, 14, 1). It might then be restored as a heavily draped Dionysos of the "Sardanapalos" type.<sup>1</sup>

A small piece of marble sculpture that may be attributed with fair assurance to the original decoration of the building is illustrated in Pl. 52a: a fragment from the head of a helmeted Athena that was found on the floor of the basement under the west balcony near the southwest corner of the building and beneath its destruction debris. The scale is about one half life.<sup>2</sup> At the top edge is a trace of a raised cheek-plate: hence the piece is to be regarded as a copy or adaptation of the Athena Parthenos of somewhat the same order as the Varvakeion Statuette. The fresh state of the surface implies that the sculpture stood indoors rather than outdoors, but beyond that it would be rash to speculate. The competent dry style of the head is reminiscent of the heads from the stage front, although the Athena can scarcely be by the same hand.

Undoubtedly to be regarded as part of the original decoration of the building are two interesting bases of Pentelic marble intended for the support of bronze statues. The first base (S 1212) was found in a fairly complete state at a point due east of the east end of the foundation for the scaenae frons where it was overlaid by the concrete foundation of the easternmost wall of the Gymnasium (Pl. 53a and b; Fig. 13). The base is semicircular in plan with a height of 0.815 m.; a resting surface 0.90 m. long and 0.40 m. wide; a top 0.74 m. in diameter. Its front is decorated with two round shields resting on edge, the top by a third shield lying flat. In the middle of the front lower edge a cutting marks the place of a dowel intended to fix the base to the floor. In the top are cuttings for three dowels suitable for the attachment of a bronze statue and a clamp leading back obviously to secure the base to a wall. The feet of the statue were placed well apart, the left was set back, the right thrust far forward. Two of the dowels have been laboriously chiseled out, the third broken off, from which we may infer that after the final destruction of the building the statue was salvaged for its own sake. The front edge of the top shield would seem to have been damaged and

<sup>1</sup> A statue of this type stood also in the Theatre of Dionysos at Athens (B. Ashmole, *B.S.A.*, XXIV, 1919-21, pp. 78-87; figs. 4 and 5 illustrate a statuette of the same type found in Knossos). Cf. also L. Curtius, *Jahrbuch*, XLIII, 1928, pp. 281-297 (for the significance of the name and type); F. P. Johnson, *Corinth*, IX, *Sculpture*, Cambridge, Mass., 1931, pp. 33 f., No. 27 (for a head of this type found in Corinth).

<sup>2</sup> S 481. Preserved height, 0.095 m. Pentelic marble. Rasp marks here and there on the surface.



then smoothed off in antiquity. The surface in general is lightly weathered so that the base may be thought of as standing outdoors but in a sheltered position.

Of the companion base only a small fragment has come to light and that in the area of the Stoa of Attalos; it bears the characteristic mortar of the "Valerian Wall" (S 1422; Pl. 53c). The fragment retains a little of the resting surface and a small segment of a shield; the workmanship is identical with that of the other base and their association is unmistakable. The surface of the second base shows light weathering, enough to suggest that this pedestal also stood outdoors, but not fully exposed to the weather.

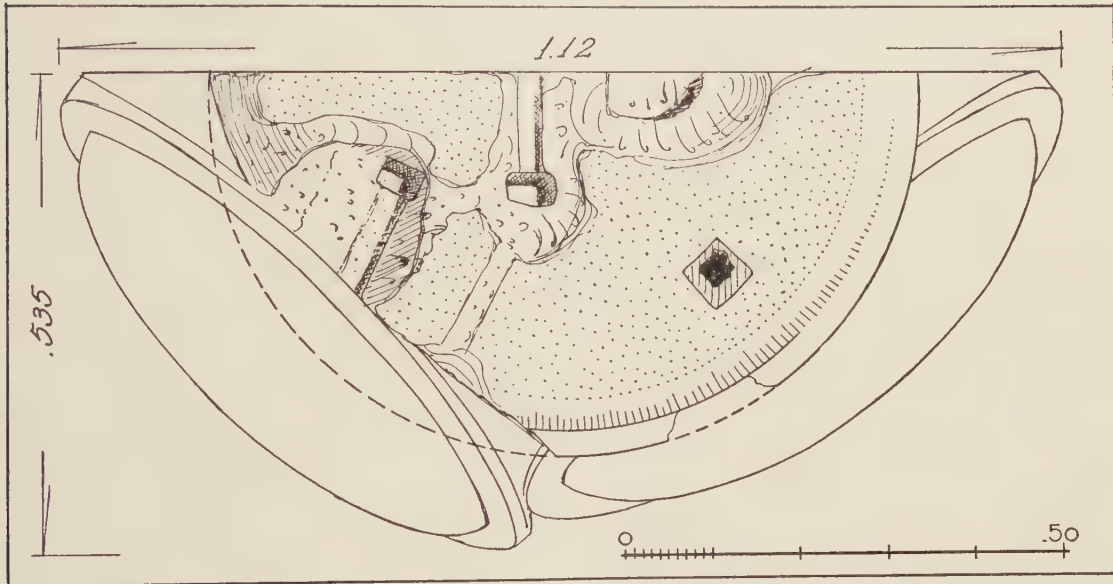


Fig. 13. Top of Base for a Bronze Statue

As for the placing of the shield bases, one might be inclined to attribute them to the scaenae frons. The scheme of the bases, however, is not suitable to a niche, nor is there any trace of underpinning for protruding bases in connection with the scaenae frons. In addition, the weathered surfaces point to an outside position. On the exterior of the building perhaps the most likely spot is the ledge formed by the stylobate of the main order between the great pilasters. Since the stylobate projected at least 0.60 m. beyond the face of the wall, it would have provided ample room for our bases, which had a resting surface only 0.40 m. wide. One is reminded of the prominence of shields in the decoration of the corresponding spaces in the Bouleuterion of Miletos (Pl. 41a). The general effect of the statues thus set between pilasters at a considerable height might be paralleled at Athens in the Monument of Philopappos and in the Arch of Hadrian, at Rome in the Colosseum where the archways in the second and third storeys of the façade were filled each with a statue. On the analogy

of the Bouleuterion at Miletos one might place statues in those spaces that had no windows, i. e. most likely the spaces at the corners. Their exact placing, however, was regarded as too problematic to justify any indication in the drawings of the restored elevation, Pls. 59, 60, or in the model, Pl. 20.

There can be no doubt that bronze statues were actually standing in the building at the time of its final collapse. Numerous fragments of a nude male figure approximately  $1\frac{1}{2}$  times life size were found in the destruction debris overlying the basement floor of the west balcony toward its south end (B 163; Pl. 54a). Some of the more distinctive pieces are illustrated: an open right hand with no trace of attribute, a fragment from the junction of abdomen and thigh, several scraps of hair and a loop of loose-hanging drapery.<sup>1</sup> From the basement of the south balcony, toward its east end, and again from the destruction debris come two fragments of a second statue (B 589, 591; Pl. 54b). Of this there remain only the lower tip of an ear and part of the calf of a leg. The scale appears to be uniform with that of the first statue and the workmanship is of the same good quality. These statues would have been appropriate in scale both to the shield bases and to the building; the circumstances of their finding would also accord well with the assumption that they were set against the outer faces of the main walls of the building toward its corners.<sup>2</sup>

#### *Materials and Technical Details*

The foundations of the building consist for the most part of large squared blocks of a very soft, pale cream-colored, poros. A good deal of second-hand material was incorporated in the foundations. This is especially evident at the northwest corner of the building where one may distinguish a series of blocks taken from a wall 0.56 m. thick with two visible faces and light drafting along the horizontal joints. The admirable workmanship of these suggest that they were cut in the fifth or fourth century B.C. Several blocks of the same series appear in the foundations of the original porch on the north front of the Odeion.

Above ground level the outer wall of the building (which alone is preserved so high) was built of a harder poros, gray or buff in color, occasionally fossiliferous.

<sup>1</sup> Width of wrist, 0.115 m.; width of hand across knuckles, 0.14 m.; average thickness of bronze, 0.005 m. Numerous flaws in the casting have been made good by means of carefully fitted patches.



<sup>2</sup> A massive marble base for the support of a bronze statue, inscribed with a dedication to Zeus Olympios, was found as left by previous excavators some nine metres north of the northwest corner of the Odeion (I 4188. *Hesperia*, VI, 1937, pp. 352 ff., figs. 16, 17). The bulk and comparative freshness of the marble suggest that it had not been removed far from its original position, which may therefore have been related to the Odeion. The cuttings in the top of the block are clearly for the support of a bronze rather than a marble statue; the round dowel beneath the heel of the foot was carefully chipped free by those who removed the statue. This base, accordingly, cannot be associated with the marble Hadrian found to the east of the Metroon (*Hesperia*, II, 1933, pp. 178 ff.). For other dedications to Hadrian, including two from the general area of the Odeion, see J. H. Oliver, *Hesperia*, X, 1941, pp. 249 ff., Nos. 49-52. Cf. also *I.G.*, II<sup>2</sup>, 3324-3368, 3367 a.




We have no direct evidence for the material of the walls that enclosed the central core of the building in its upper storey.

The marble used in the columns and entablature of the main order, as well as in the roof of the balcony, is Pentelic, for the most part of inferior grades containing many blue streaks and heavy veins of impurities. Blue Hymettian marble would seem to have been employed for the stylobate of the main order.


The one wall block that remains in position with an originally visible outer surface exposed exhibits a very matter-of-fact hammer-finished treatment; the same finish occurs on the one surviving and originally visible course of the great monument base to the north of the northeast corner of the Odeion. No evidence is available for the treatment of the outer wall surfaces in their upper parts. The plane surfaces of the marble were normally hammer-dressed and edged with a smooth band 0.02 m. wide; the mouldings were finished smooth.

Clamps were used sparingly in the lower parts of the walls, apparently only where special stress was expected. In the euthynteria of the great monument base to the north of the northeast corner of the Odeion occur cuttings for long  clamps ( $0.02 \times 0.25$  m.), flaring slightly toward the ends. This, of course, is the type of clamp that one would expect to find in a building of the date of the Odeion. It was not a little startling, therefore, to discover in the first course above floor level in the south and east outer walls of the building clamps of  shape ( $0.25 \times 0.06$  m., the iron *ca.* 0.003 m. thick). One actual clamp of this type with its iron and lead complete remains in place in the east wall (Pl. 55a); cuttings for similar clamps occur in most but certainly not all the joints of the corresponding course in the south wall. These clamps would seem to represent a direct revival of the familiar fifth-century type, and it is tempting to suppose that the architect of the Odeion had been inspired by the technique of the Temple of Ares which was being transplanted at the very time when the Odeion was under construction.<sup>1</sup> There is no trace of dowels in the walls of the Odeion.

Both architrave and cornice blocks retain cuttings for clamps of normal  shape, a characteristic specimen of which is illustrated in Pl. 55c.<sup>2</sup>

The best preserved of the surviving drums from the round columns of the main order was joined to each of its neighbors by two dowels, leaded through pour channels. The under sides of those capitals that can be examined show cuttings for single dowels at their mid-points.

Typical examples of the hardware found in the debris on the floor of the building are shown in Pl. 55c. Among the fittings from timber work is the bent iron bar,<sup>3</sup>

<sup>1</sup> In this connection it may be worth noting that  clamps also occur in the east porch of the Market of Caesar and Augustus.

<sup>2</sup> IL 687. Length, 0.29 m.

<sup>3</sup> IL 846. Length, 0.40 m.; width, 0.04-0.05 m.

probably broken away at both ends, with a heavy spike set through it; the flat bar<sup>1</sup> and the spikes.<sup>2</sup>

Reference has already been made to the plain white stucco on the walls of the basement beneath the balcony (p. 41).

Many small fragments of painted stucco were found to the north of the Odeion in a layer of earth and rubbish that was thrown out above the ground level to be associated with the series of marble stairways. Its quantity and its proximity to the building leave little doubt that it comes from some repair of the Odeion, and may well represent the original wall surface of the interior of the auditorium or scaena. Characteristic fragments are shown in Pl. 56.

Too little remains to permit the recovery of the scheme of treatment of the wall surface; it is clear, however, that it was rendered in a simple imitation of ashlar masonry with drafted margins around the blocks. There are a few fragments of stucco moulding of cyma reversa and cavetto profile with a total height of 0.08 m. The colors represented among the fragments are solid black, red, yellow, green, white and various marbled effects. Particularly interesting is a scrap which had been decorated in the first place with daubs of black and red on a white ground and had subsequently been re-stuccoed in yellow.<sup>3</sup>

The foundation trenches of the building were set out with quite exceptional precision and the courses of blocks as far as preserved were laid with very great exactitude so that the width of the building from one end to the other shows no measurable variation and the angles between the walls are exactly right angles, a remarkable achievement in a structure of this size. To assure the correct alignment of successive courses, guide lines were deeply incised on the top of each course, one toward either edge of the foundation. In the north and south walls of the inner rectangle these lines are 2.08 m. apart, in the east and west walls of the inner rectangle 1.78 m., in the east wall of the outer rectangle 1.54 m. The guide lines were intended not to fix the extreme margins of the succeeding course but to correspond to a pair of similar guide lines incised on the top and side of each block of the next course. An example of this painstaking but effectual procedure is illustrated in Fig. 14 and Pl. 55b.

#### *Date of the Original Construction*

Evidence for dating the original construction of the Odeion may be derived from the stratification in and around the building, from the style of its architecture and from the style of its sculpture.

<sup>1</sup> IL 688. Length, 0.44 m.; width, 0.08 m.

<sup>2</sup> IL 164 (0.073 m.); IL 174 (0.07 m.); IL 175 (0.11 m.); IL 775 (0.16 m.) and IL 776 (0.12 m.).

<sup>3</sup> The stucco is of good quality and closely comparable with that on the inner face of the outer wall of the building near its southeast corner. The first coat is *ca.* 0.02 m. thick, of lime mortar and fine gravel; the finishing coat *ca.* 0.003 m.-0.01 m. thick, of lime and marble dust.



The evidence from stratification is slight in bulk but clear and decisive. A considerable mass of the filling thrown in to support the seats and the floor of the lobby has been examined. Since most of this material was spoil from digging the foundation

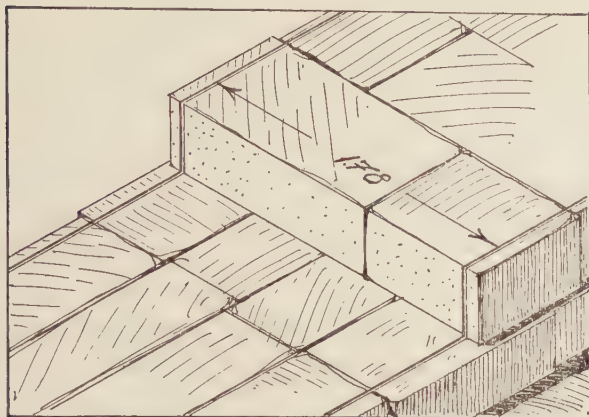


Fig. 14. Sketch of East Foundation of Auditorium to Illustrate Setting Lines

trenches of the Odeion and from scooping out the orchestra, it yielded chiefly early pottery, but at many points it produced fragments of late Hellenistic wares running well down into the first century B.C. Along the north façade of the building the stratification was found in large part undisturbed and from it the history of the building could be read from beginning to end. Certain pits and hollows that were filled up by the builders of the Odeion contained scraps of plain pottery dateable from evidence found elsewhere in the Agora to the early Augustan period; fragmentary lamps of Broneer's Type XVIII of the late varieties that were in use in Athens as in Corinth soon after the refounding of Corinth in 44 B.C.,<sup>1</sup> and one scrap of Arretine ware that is not likely to have reached Athens before the closing decades of the first century B.C.<sup>2</sup> In the first thin layer of gravel that gathered above the original ground level of the Odeion in this area were found numerous pieces of Arretine ware, scraps of moulded glass bowls, plain pottery and lamps of the advanced Augustan period. The sum of this evidence, therefore, indicates a date in the mid-Augustan age.

Of the surviving architectural members the large capitals are the most distinctive and most helpful for dating. The one well preserved example of the round exterior capitals, identical in scheme with the square outer capitals, was submitted to a penetrating stylistic analysis by Margarete Gütschow long before its connection with the Odeion had been suspected.<sup>3</sup> On the ground of its position in the sequence of development of the Corinthian capital in the late Hellenistic and early Roman periods, in particular because of the slight advance which it shows beyond the stage attested by the Inner Propylaia of Eleusis (begun 50-48 B.C.),<sup>4</sup> the capital was dated to the second half of the first century B.C.



<sup>1</sup> O. Broneer, *Corinth*, IV, ii, *Terracotta Lamps*, Cambridge, Mass., 1930, pp. 65 f.

<sup>2</sup> F. Oswald and T. D. Pryce, *Terra Sigillata*, London, 1920, p. 4.

<sup>3</sup> *Jahrbuch*, XXXVI, 1921, pp. 72 f., Beilage III, 8.

<sup>4</sup> H. Hörmann, *Die inneren Propyläen von Eleusis*, Berlin and Leipzig, 1932, Pls. 47-49.

The acanthus and lotus capitals of the free-standing interior series belong to a type of which the full development has not yet been worked out.<sup>1</sup> Its germ is already discernible, however, in the Monument of Lysikrates (335/4 B.C.) where the acanthus springs from the lotus.<sup>2</sup> The combination of acanthus and lotus in a scheme more closely resembling that of our capital was popular in the minor arts in the early part of the first century B.C.<sup>3</sup> The further development of the capital type, in particular the elimination of the projecting angles from the scheme of decoration of the kalathos, was no doubt influenced by such Egyptianizing capitals as those employed in the stoas of Eumenes and Attalos.<sup>4</sup> The type appears fully developed in the porches of the Tower of the Winds, a building that was mentioned by Varro in 37 B.C. and that was probably erected very shortly before that date.<sup>5</sup> The Odeion capitals are identical in scheme with those from the Tower of the Winds. The slightly more massive proportions and the greater salience of the leaf tips on the Odeion capitals may be accounted for by their larger scale and the height at which they were to be seen. These slight variations, therefore, need imply no great difference in date. In sheer beauty of design and quality of workmanship the Odeion series is easily superior to the other known examples of the type in Athens.<sup>6</sup>

For the mouldings of the architrave, frieze and cornice of the main order of the Odeion close parallels are to be found in the Tower of the Winds and in the Market of Caesar and Augustus, the construction of which was initiated probably in 47 B.C. and completed about 10 B.C.<sup>7</sup> Relevant too is the close similarity in technical details between the Odeion and the Market of Caesar and Augustus: in the cutting of anathyrosis, in the combination of hammer-dressed plane surfaces with smooth-dressed mouldings, in the use of  clamps supplemented here and there by  clamps of classical form.<sup>8</sup> These technical similarities are so close, indeed, as to leave little

<sup>1</sup> On the type in general cf. J. Durm, *Die Baukunst der Griechen*<sup>3</sup>, Leipzig, 1910, p. 347; F. Winter, *Griechische Kunst*, in Gercke-Norden, *Einleitung in die Altertums-Wissenschaft*<sup>3</sup>, II, p. 142.

<sup>2</sup> Stuart and Revett, *The Antiquities of Athens*, I, London, 1762, ch. IV, pl. VI.


<sup>3</sup> *Hesperia*, III, 1934, pp. 406 ff., E 79.

<sup>4</sup> Durm, *Die Baukunst der Griechen*<sup>3</sup>, p. 350, figs. 337-339.

<sup>5</sup> Stuart and Revett, *The Antiquities of Athens*, I, ch. III, pl. VII; Graindor, *Athènes sous Auguste*, pp. 178 f.; Judeich, *Topographie von Athen*<sup>2</sup>, pp. 374 f.; H. S. Robinson, *A.J.A.*, XLVII, 1943, pp. 291-305; Dinsmoor, *A.J.A.*, XLVII, 1943, pp. 383 ff.

<sup>6</sup> Six specimens, perhaps from columns carrying dedications, lie in the Theatre of Dionysos (Fiechter, *Das Dionysos-Theater in Athen*, I: *Die Ruine*, Abb. 54; III: *Einzelheiten und Baugeschichte*, Stuttgart, 1936, p. 40, fig. 20, Taf. 14.). Another capital of this type lies near the corner of the peribolos of Olympian Zeus. For the type in Corinth cf. R. Stillwell, *Corinth*, I, ii, *Architecture*, Cambridge, Mass., 1941, pp. 124 f., figs. 82, 83.

<sup>7</sup> On the vexed question of the dating see G. Bagnani, *Bolletino d'Arte Cronaca*, I, 1921, pp. 531 ff.; Graindor, *Athènes sous Auguste*, pp. 184-198; Judeich, *Topographie von Athen*<sup>2</sup>, p. 371; Robinson, *A.J.A.*, XLVII, 1943, pp. 291-305; Dinsmoor, *A.J.A.*, XLVII, 1943, pp. 383 f. Neither the early dating by Robinson nor the late dating by Bagnani seems tenable.

<sup>8</sup> Clamp cuttings of  shape are to be seen in the north wall of the east propylon of the Market.



doubt that the two building programs were in progress at the same time and were being carried out by workmen thoroughly familiar with each other's methods.

A date in the Augustan period would be most compatible with still another feature of the architectural style of the Odeion, viz. the classicizing flavour evident in the purity of the moulded profiles of its entablature and still more in the carved decoration of the "altar" and of the crowning moulding from the stage front. The same tendency is prominent in the previously known buildings of the Augustan period in Athens: the columns of the Temple of Rome and Augustus on the Acropolis being adaptations of those of the Erechtheion, the west propylon of the Market of Caesar and Augustus smacking of the fifth century both in its general scheme and in its details.

A still more significant instance of the influence of a fifth-century building on the Odeion is to be detected in the handling of its south end. The scheme whereby the interior of the building was illuminated in large part by light from a lobby that was itself lighted through a colonnade is identical with that employed in the west part of the Erechtheion in its original form (Pl. 57).<sup>1</sup> Similar too is the relation in the two buildings between the height at which the light entered and the floor inside, as also the insertion of doorways in both the outer and the inner walls. Subsequently, it will be recalled, the west end of the Erechtheion was closed by a screen wall supported by attached half columns and broken only by three large windows set between the half columns (Pl. 40b). This later arrangement may well have inspired such windows as we have restored in the other three sides of the Odeion. The one time in antiquity when such dual inspiration could have been derived from the Erechtheion was the occasion of the thorough remodelling after a fire in the late Greek period. This reconstruction has been dated toward the end of the first century B.C., in part because one of the original cornice blocks of the Erechtheion was re-used in the foundations of the Temple of Rome and Augustus which was itself built after, and probably soon after, 27 B.C.<sup>2</sup>

For the orchestra floor little comparative material is available in Greek lands. In Italy, and especially in the Campanian cities, on the other hand, there are abundant parallels for technique, motifs and syntax.<sup>3</sup> If one may employ this Italian evidence, the combination of motifs (lozenges, triangles, inset squares), the common use of narrow border stripes of contrasting material, the free employment of marble would accord best with a date in the Augustan period for the Odeion paving.

Our floor takes its place as one of the earliest and most elaborate examples of *opus sectile* known in Greece. This type of flooring, involving the use of marble slabs

<sup>1</sup> Stevens and Paton, *The Erechtheum*, pls. XIII and XV.

<sup>2</sup> *Ibid.*, pp. 178-180, 478 f.

<sup>3</sup> The material is readily accessible in the study by M. E. Blake in *Memoirs of the American Academy in Rome*, VIII, 1930, pp. 35-49.

laid in patterns, appeared late in Greece and met with little favor in competition with the older, more familiar techniques of mortar reinforced with pebbles (*tarazzo*) and mosaic composed of pebbles, tesserae or marble chips. It does not figure among the rich series of paved floors on Delos, which runs down into the first century B.C.; nor does it occur at Priene; nor have examples earlier than the time of Augustus been found in the Athenian Agora.<sup>1</sup> Inasmuch as *opus sectile*, and in particular the *opus scutulatum* or lozenge pattern which is prominent in our floor, would seem to have come into use in Italy already in the second century B.C. and remained popular throughout the first century, we may suggest that the orchestra flooring is one of several elements in our building which show direct influence from the side of Italy.<sup>2</sup>

The decorative sculpture of the Odeion is pervaded, like its architecture, with a classicistic atmosphere. The marble façade of the stage front in which human forms are used as supports in combination with richly carved mouldings reminds one inevitably of the Porch of the Maidens; comparison of the female heads from the stage front with the heads of the Caryatids will reinforce the suspicion of a connection. The male heads are no less clearly derived from fifth-century prototypes, most likely from one or other of the *diadoumenoi*. The skill with which these various elements were selected and combined, the sure taste with which the modelling of the heads was simplified to suit their architectural setting, the exquisite craftsmanship, all represent hall marks of the developed Augustan style.<sup>3</sup>

<sup>1</sup> *Opus sectile* laid in a lozenge pattern occurs in a room of the House of the Consul Attalos at Pergamon (*Ath. Mitt.*, XXXII, 1907, p. 184). Accepting the opinion of the excavators that this floor dated from the time of the kings (i. e. before 133 B. C.), Miss Blake (*ibid.*, p. 37) was tempted to suggest a Pergamene origin for the type. In view of its striking isolation at such an early period one might, however, question the dating of the floor. The house, though dating from the regal period, certainly continued in use and underwent many alterations in the Roman period. Is it not possible that the *opus sectile* which is enframed in mosaic represents a late replacement of an original mosaic panel? An *opus sectile* floor that has much in common with our orchestra floor is known from a house on Thera (F. Hiller von Gaertringen and P. Wilski, *Thera*, III, Berlin, 1904, p. 187, pl. I). The excavators have not ventured on a date for the house; its walls, however, are painted in a style that is familiar in Athens after rather than before the time of Augustus.

<sup>2</sup> It may be symptomatic of the alien inspiration of our floor that the later marble orchestra pavings in Athens, viz. that in the Theatre of Dionysos which is attributed to the time of Nero (Fiechter, *Das Dionysos-Theater in Athen*, I: *Die Ruine*, pp. 57 ff.: the horse-shoe shaped area of the orchestra is reduced to a rectangle in which is inscribed a rhomb) and that in the Odeion of Herodes Atticus (W. P. Tuckermann, *Das Odeum des Herodes Atticus und der Regilla*, Bonn, 1868, pl. 1: an overall checkerboard design) of the mid second century, are much simpler, much less studied in design, while the elaborate and attractive floor in the Odeion of Epidauros (later second century ?) shows a reversion to the older and more familiar technique of mosaic (Πρακτικά, 1904 (1906), pl. A'; Bieber, *The History of the Greek and Roman Theater*, fig. 432: overall scale pattern for the semicircle of the orchestra proper, a broad band of elaborate geometric design between this and the stage front).

<sup>3</sup> On the classicistic sculpture of Athens in this period cf. G. Becatti, *Rivista del r. Istituto d'Archeologia e Storia dell' Arte*, VII, 1940, p. 86.



It is now apparent that the internal evidence permits, indeed requires a date of construction consonant with the attribution of the Odeion to M. Vipsanius Agrippa. Admitting this association we may place the initiation of the project within the period from 23 to 13 B.C. when Agrippa held the governorship of Syria and probably a still wider command in the east. A more precise occasion may be found in Agrippa's visit to Athens which has been dated variously in 16 or 14 B.C.<sup>1</sup> A firm *terminus ante quem* is afforded by Agrippa's death in 12 B.C. There can be little doubt that the construction of the Odeion was one and perhaps the principal reason for the people of Athens naming Agrippa their benefactor in the inscriptions on their various dedications to him, above all the bronze chariot group on the tall pedestal in front of the Propylaia.<sup>2</sup>

A word regarding the need for the new building. Inasmuch as the Odeion of Perikles had been rebuilt just before the middle of the century, why was a second concert hall required? The old Odeion was regarded by the pseudo-Dikaiarchos, writing in the fourth or the third century B.C., as the finest in the world,<sup>3</sup> and it was still numbered by Strabo among the famous places of Athens.<sup>4</sup> By the time of Augustus, however, Perikles' building must have appeared very old-fashioned and awkward, having been rebuilt, as it seems, on the original lines. Although we are still woefully ignorant of the details of its arrangements, literary references to its use as a place for doling out grain, for bivouacking cavalry and for the convenience of lounging philosophers indicate clearly that there could have been little in the way of permanent sloping seats.<sup>5</sup> The building was notorious, moreover, for the number of its interior columns which must have seriously interfered with the view.<sup>6</sup> By the middle of the second century after Christ the Periklean building had become so obsolete that Pausanias referred to it not as an Odeion but as "a structure made in imitation of the tent of Xerxes" (I, 20, 4).

The architect of the Agrippeion clearly aimed to correct the shortcomings of the Odeion of Perikles. In the new building the whole seating floor was given an adequate slope; it was generously provided with stairways and with entrances. Above all, the auditorium was completely free of interior supports so that there was not a "blind spot" in the house.

<sup>1</sup> For the date of the visit cf. M. Reinhold, *Marcus Agrippa*, Geneva, N. Y., 1933, pp. 106-110; Graindor, *Athènes sous Auguste*, p. 49; Dinsmoor, *Hesperia*, IX, 1940, p. 51 and *A.J.A.*, XLVII, 1943, pp. 383 f.

<sup>2</sup> Dinsmoor, *A.J.A.*, XXIV, 1920, p. 83; Graindor, *Athènes sous Auguste*, pp. 48 f.

<sup>3</sup> *Frag. Hist. Gr.*, II, p. 254.

<sup>4</sup> *Geography*, IX, 1, 17. The first edition of the *Geography* is now believed to have been written about 7 B.C. Cf. H. L. Jones, *Geography of Strabo*, Loeb Classical Library, I, pp. xxv f.

<sup>5</sup> For the references cf. J. G. Frazer, *Pausanias*, II, ed. 2, London, 1913, pp. 219 f.

<sup>6</sup> Plutarch, *Pericles*, 13: τὸ δ' Ὀιδείον, τῇ μὲν ἐντὸς διαθέσει πολυέδρον καὶ πολύστυλον. Theophrastus, *Characters*, 3: περὶ ἀδολεσχίας· πόσοι εἰσὶ κίονες τοῦ Ὀιδείου — —;

*Architectural Design of the Original Building*

In considering the basic design of the Odeion we may start with the central core, the theatre proper. The type of roofed auditorium which had been employed in a "primitive" form in Greek lands from an early date (e. g. the Telesterion at Eleusis, the Odeion of Perikles, the Thersilion at Megalopolis) was highly developed in the Hellenistic period, especially for the meeting places of political bodies.<sup>1</sup> This stage of evolution is most splendidly illustrated by the Bouleuterion of Miletos (175-164 B.C.) (Pl. 41). Here already we find a large rectangular hall covered by means of a gabled roof and provided with a conveniently sloping auditorium. In contrast to the forest of interior supports in the earlier buildings, the Milesian building is restored with only four interior columns. It is to be noted, moreover, that in Miletos the division into two storeys was clearly marked both internally and externally. The lower storey contained the cavea; externally its wall was plain. The upper storey rose in its full height above the cavea and was enclosed by means of a thin wall which was both strengthened and enlivened by Doric half columns outside and corresponding pilasters inside; light was admitted through windows set between the half columns.

The Odeion in the Agora represents a further advance in the development of this type, notably in respect of the reduction in the relative size of the orchestra, in the drastic truncation of the curvilinear scheme of the cavea, in the provision of a well defined lobby at the back of the auditorium, and in the complete elimination of interior supports despite the very impressive dimensions of the hall. In view of the paucity of our evidence it would be rash to dogmatize on exactly where and when the intervening development occurred.

It is worth noting, however, that most of the distinctive elements of our Odeion are to be found already in the earlier periods of the small or "Roofed Theatre" of Pompeii, built soon after 80 B.C. (Pl. 58b).<sup>2</sup> In Pompeii the interior of the auditorium approximated a square (*ca.* 29.30 × 27.60 m.); the semicircular plan of the cavea was truncated as in our Odeion; the scaena comprised a single long narrow room; the scaenae frons had no architectural decoration but was painted in the Second Style; back of the cavea was a lobby (its floor to be sure at a much lower level than the top of the auditorium); the building was flanked on either side by colonnades which must have been covered with lean-to roofs as in the Odeion; despite the very great span between the walls and the absence of interior supports the building was described in the dedicatory inscription as roofed. In its original form, the Pompeian building apparently had no stage and its orchestra was much larger than that of our Odeion.

<sup>1</sup> For a comprehensive study of the type cf. W. A. McDonald, *The Political Meeting Places of the Greeks*, Baltimore, 1943.

<sup>2</sup> Mazois and Gau, *Les ruines de Pompéi*, IV, pls. XXVII-XXIX; H. Bulle, *Untersuchungen an griechischen Theatern*, Munich, 1928, pp. 205 f., pl. 46; Bieber, *The History of the Greek and Roman Theater*, pp. 328-331.



Subsequently, however, the orchestra was scooped out, permitting the insertion of four additional rows of seats and the erection of a stage. Still later the parodoi were vaulted so as to support tribunalia presumably for the seating of dignitaries. Satisfactory evidence has not yet been adduced for the absolute dating of these alterations at Pompeii.<sup>1</sup> The similarity between the Odeion of the Agora and the Roofed Theatre of Pompeii in its intermediate form is so striking, however, as to suggest that the Pompeian building was known to the designers of our Odeion, but the exact relationship must depend on the closer dating of the adjustments at Pompeii.<sup>2</sup>

Among the later buildings on which our Odeion may have exercised some influence may be numbered the Odeion of Termessos in Pisidia (finished by the end of the first century after Christ) (Pl. 40a).<sup>3</sup> This building, like our Odeion, was set against rising land so that it had an entrance from the rear at the level of the top of the cavea; its division into storeys and the pilastered treatment of its upper wall would also appear to have been similar to the Athenian building.

The "Gerontikon" or council house of Nysa on the Maeander (Antonine period) also had much in common with the Agora building, notably in the scheme of lighting through an open colonnade on the side opposite the stage.<sup>4</sup> In the same general category may be placed the Odeion that was set down in the old Gymnasium at Epidauros, perhaps in the second century after Christ, but profitable comparison must await the closer study of that building.<sup>5</sup>

Odeia of the rectangular type, however, were comparatively rare. It is significant that the concert halls which were counted the finest in Greece in the second century after Christ, viz. the Odeion of Herodes Atticus in Athens, the Odeion of Corinth as remodelled by Herodes, and the Odeion of Patrae all have semicircular auditoria.<sup>6</sup> The roofing problems raised by the curvilinear plan would seem to have been outweighed by the greater convenience and beauty of the semicircular seating area.

In the scheme of its central part, i. e. the theatre proper, our building fits fairly easily into a line of development. Complications are raised, however, by the com-

<sup>1</sup> For the relative sequence cf. Bulle, *op. cit.*

<sup>2</sup> The closest parallel in Greece proper for the Odeion of the Agora is the "Synedrion" of Messene, but no fruitful comparison can be drawn until the scheme and date of that building have been more thoroughly established. Cf. G. Oikonomos, *Πρακτικά*, 1909, pp. 201-205; 1925/6, pp. 55-64; *B.C.H.*, XLIX, 1925, pp. 453 f.; *A.J.A.*, XXX, 1926, pp. 360 f.; McDonald, *The Political Meeting Places of the Greeks*, pp. 204-211.

<sup>3</sup> Lanckoroński, *Städte Pamphyliens und Pisidiens*, II, pp. 99 f., pls. I and XIV, fig. 30. Cf. also the smaller odeion with the same general scheme at Kretopolis (*ibid.*, p. 101, fig. 59).

<sup>4</sup> For the references cf. p. 77, note 5.

<sup>5</sup> Kavvadias, *Πρακτικά*, 1901, pp. 49-51, pl. A; 1904, pl. A'; Bieber, *History of the Greek and Roman Theater*, p. 331, p. 381, note 34.

<sup>6</sup> On the reputation of the odeia of Athens, Corinth and Patrae cf. Pausanias, VII, 20, 6; Philostratos, *Vitae Soph.*, II, 551. Cf. also the handsome odeion at Ephesos (mid second century after Christ): J. Keil, *Ephesos, ein Führer durch die Ruinenstätte und ihre Geschichte*, Vienna, 1930, pp. 91 ff.

bination of theatre and balcony. The idea of adding the balcony may, indeed, have been suggested by the two-storeyed stoas that had long been familiar in Athens: the larger Stoa in the Asklepion, the Stoa of Eumenes, the Stoa of Attalos, to name only those that we know. In all these cases the upper storey faced outward through an open colonnade, the height assuring a good view and fresher air. In the Stoa of Attalos, this open and outward-looking balcony was combined as in the case of the Odeion with a closed building (a series of shops).

It would be well, however, to consider the possibility of influence from another direction, viz. from the basilica. In its design our building shows certain fundamental similarities with such early basilicas as those of Pompeii,<sup>1</sup> Ardea,<sup>2</sup> Fano<sup>3</sup> and that on the Lechaem Road in the Roman colony of Corinth.<sup>4</sup> In the Odeion as in these basilicas the ground plan comprised a principal central area free of supports and surrounded on all four sides by narrow aisles open for communication. In our building as in the basilicas the roof of the central part was carried higher than that of the surrounding corridors and the central hall was lighted through openings in the height of wall between the two roofs. In his general specifications for the design of the basilica Vitruvius (V, 1, 5) implied that there would normally be an upper floor above the side aisles, and he included such a floor in the basilica which he himself designed for Fano. Normally, no doubt, the upper floor of the aisles would have been bordered on the inner side by a low parapet over which people could have looked down into the great central hall; this is specifically attested for the Basilica Julia in Rome.<sup>5</sup> Vitruvius, on the other hand, prescribed that "the parapet between the upper and lower columns ought to be one fourth less than the upper columns, so that people walking on the first (i. e. upper) floor may not be seen by persons engaged in business."<sup>6</sup> In a basilica thus designed the upper floor of the surrounding part for all practical purposes would have been as completely divorced from the central hall as was our balcony. Vitruvius does not inform us, however, whether those on the upper floor above the aisles could have looked outward.

In the bold use of balconies in combination with terraces our Odeion recalls the villa architecture of Campania, as represented in such surviving examples as the Villa of the Mysteries and, still more, in the wall paintings. Terraces and balconies were used in this region with extraordinary freedom and variety, frequently around

<sup>1</sup> R. Schultze, *Basilika*, Berlin and Leipzig, 1928, pp. 1 ff.

<sup>2</sup> *Bolletino dell' associazione internazionale degli studi mediterranei*, V, 1934, pp. 7 ff.

<sup>3</sup> Vitruvius, *de Arch.*, V, 1, 6 ff.

<sup>4</sup> H. N. Fowler and R. Stillwell, *Corinth, I, Introduction, Topography, Architecture*, Cambridge, Mass., 1932, pp. 193 ff., fig. 131. The Julian and the South Basilicas at Corinth show striking similarities with the Odeion in the disposition of their basement storeys; the definitive study of these two interesting buildings may be expected to shed further light on their relationship with the Odeion.

<sup>5</sup> Pliny, *Epistulae*, VI, 33.

<sup>6</sup> *de Arch.*, V, 1, 5. Trans. F. Granger in Loeb Classical Library.



lofty buildings the central parts of which towered high above the surrounding elements as in our Odeion (Pl. 58a).<sup>1</sup>

Since it is in Campania that we find the earliest well developed example of the type of basilica with which the Odeion has so much in common, and since Campania also affords the best parallels for the balconies of our building, it is tempting to believe that the unique combination of elements represented by the Odeion was propounded by someone thoroughly familiar with Campania.

Another possible contact with South Italy is represented by the design of our stage front. The most cogent parallels for the Odeion stage are to be found in the representations of theatre stages on the Phlyakes vases of South Italy.<sup>2</sup> These stages, so far as one may trust the sketches, would seem to have been low, normally perhaps half the height of a man; they were supported along the front by a series of posts with or without capitals; the material of both posts and decking was wood so that we need not hope for surviving examples. Our stage front might well be regarded as a translation into marble of a late development of such a design.

The daring and the technical skill required to roof the central part of our building with its formidable span may also have come from Italy. To our knowledge no building in the Greek east had involved the roofing of a span that even approached the 25 metres of the Odeion. The nave of the Parthenon measured only 9.82 m. between the inner colonnades; the Bouleuterion of Miletos, with a span of 22.165 m. between its side walls, has been restored with four interior columns which reduce the open span to 15 m.;<sup>3</sup> the span in the Ekklesiasterion of Priene, originally 14.50 m., was reduced in a later period to 10.65 m.<sup>4</sup> In Italy, on the other hand, we can point to the Roofed Theatre of Pompeii that would seem to have been roofed with timber without benefit of interior supports, despite an open span of *ca.* 27.60 m.; the central nave of the Basilica Aemilia on the Forum Romanum measuring 27 m. in width was re-roofed with timber in the time of Augustus and it was to be followed in the Flavian period by the Basilica Ulpia with a span of *ca.* 25 m. which was likewise roofed with timber. The Romans took pride in the engineering feats involved in the construction of such prodigious roofs and it may well have been their accumulation of technical skill that led to the selection of a Roman architect, Cossutius by name, to resume the construction of the Temple of Olympian Zeus at Athens under Antiochos IV Epiphanes (175-164 B.C.),<sup>5</sup> as also to the inclusion of two Romans on the team

<sup>1</sup> The literature has been conveniently assembled by Bieber, *History of the Greek and Roman Theater*, pp. 220 ff. Our Pl. 58a is taken from *Röm. Mitt.*, XXVI, 1911, pl. VII.

<sup>2</sup> Dörpfeld-Reisch, *Das griechische Theater*, figs. 74-79; M. Bieber, *Die Denkmäler zum Theaterwesen im Altertum*, Berlin and Leipzig, 1920, pp. 138 ff., pls. 76-86; *The History of the Greek and Roman Theatre*, pp. 258 ff.

<sup>3</sup> Knackfuss, *Milet*, I, ii, *Das Rathaus*, pp. 53 ff.

<sup>4</sup> T. Wiegand and H. Schrader, *Priene*, Berlin, 1904, pp. 226 f.

<sup>5</sup> Vitruvius, *de Arch.*, VII, praef., 15: *Itaque circiter annis quadringentis post Antiochus rex*

of three architects who rebuilt the Odeion of Perikles in the middle of the first century B.C. In both the Olympieion and the Odeion of Perikles the most difficult problem was undoubtedly the roofing of great spans.

### *Choice and Handling of the Site*

Granted the need of a new building in the Augustan age, the choice of site seems at first glance preposterous. Why was the new concert hall planted in the middle of the busy market square instead of being placed, let us say, on the south slope of the Acropolis where the natural configuration would have provided a ready-made slope and where the building might have shared with the Theatre of Dionysos the use of the Stoa of Eumenes as a promenade? Why, in other words, was the Agrippaion not placed where the Odeion of Herodes was erected some 175 years later?

The actual choice of site would seem to have been determined by several considerations, the first of which was perhaps the proximity of the ancient Orchestra, the dancing place that had served for dramatic performances before the construction of the Theatre of Dionysos.<sup>1</sup> The position of the Orchestra may now be fixed with fair assurance by combining the literary references with the results of the current excavations. Timaeus (third century after Christ?) in his *Lexicon Platonicum s.v. Orchestra*, described the Orchestra as "a place in clear view for festive gatherings, in which are the statues of Harmodios and Aristogeiton."<sup>2</sup> Of these statues Arrian, writing in the second century after Christ, reported (*Anab.*, III, 16, 8): "they now stand at Athens in the Kerameikos where we go up to the Acropolis, about opposite the Metroon, not far from the Altar of the Eudanemoi."<sup>3</sup> The Altar of the Eudanemoi still awaits identification. The statues of the Tyrannicides, however, may be placed from Pausanias' mention of them (I, 8, 5) between the Temple of Ares and the Odeion; an inscribed fragment from one of their pedestals has actually been found to the east of the Temple, to the north of the Odeion.<sup>4</sup> The way to the Acropolis from the Agora was certainly the Panathenaic Road, now securely identified, which skirted the northeast corner of the Odeion.<sup>5</sup> The Metroon of Arrian's day was undoubtedly the great building on the west side of the square directly opposite the Odeion.

*cum in id opus impensam esset pollicitus cellae magnitudinem et columnarum circa dipteron conlocationem epistyliorumque et caeterorum ornamentorum ad symmetriam distributionem magna sollertia scientiaeque summa civis Romanus Cossutius nobiliter est architectatus.*

<sup>1</sup> Judeich, *Topographie von Athen*<sup>2</sup>, p. 341.

<sup>2</sup> Ὀρχήστρα· τὸ τοῦ θεάτρου μέσον χωρίον, καὶ τόπος ἐπιφανὴς εἰς πανήγυριν, ἔνθα Ἀρμόδιον καὶ Ἀριστογείτονος εἰκόνες. The adjective ἐπιφανὴς means simply "in clear view," whether because of prominence as in the case of Dekeleia in relation to Athens (Thuc. VII, 19, 2) or because of being visible from surrounding heights as was Amphipolis (Thuc. V, 10, 1); the second connotation is the one obviously intended in reference to an assembly place.

<sup>3</sup> Καὶ νῦν κείται Ἀθήνησιν ἐν Κεραμεικῷ αἱ εἰκόνες ἧ ἄνιμιν ἐς πόλιν καταντικρὺ μάλιστα τοῦ Μητροῦ οὐ μακρὰν τῶν Εὐδανέμων τοῦ βωμοῦ.

<sup>4</sup> I 3872. *Hesperia*, V, 1936, pp. 355 ff.

<sup>5</sup> *Hesperia*, VIII, 1939, pp. 207, 223; XII, 1943, p. 238; XV, 1946, p. 85; XVIII, 1949, pp. 134 f.



We can thus delimit the place in which the Tyrannicides stood, i. e. the Orchestra, to north, east and west. This space in Arrian's day was largely overlaid by the Odeion, and it is undoubtedly significant that neither Arrian nor his close contemporary Pausanias in their references to the Tyrannicides mentioned the Orchestra; Timaeus, probably drawing on a much earlier literary source, did employ it as a natural point of reference. The current excavations, as we have seen above (p. 36), have shown that the Odeion was set down on a broad smooth area that sloped gently upward from north to south. Before the erection of the Middle Stoa in the second century B.C. this area was bounded on the south by a more abrupt slope; afterwards it was overlooked from the south by the terrace of the Stoa. The area would seem to have become a public place in the early sixth century and it was kept remarkably clear and free of monuments until the Odeion was built. The more precise delimitation of the area and a closer knowledge of its configuration may be expected from further exploration around the Odeion, but it is already evident that the place suits admirably all the known data regarding the site of the Orchestra. We may imagine that in early days the temporary wooden bleachers, the collapse of which on one occasion led to the abandonment of the site for dramatic performances, were erected chiefly on the steeper ground to the south so that the majority of the spectators faced north, precisely as in the Odeion. Such correspondence can scarcely be fortuitous; we may regard the choice of site as one more indication of the reverence for the past that has already been observed in the architectural forms and the sculptural decoration of the building.<sup>1</sup>

We have argued above that an important secondary function of the Odeion was to provide good standing room from which to view passing processions or ceremonies. Since the floor of the balcony was to lie high above the floor of the market square it was desirable to have some ready means of access to it, a problem which was very effectively solved by setting the new building against the terrace of the Middle Stoa and keeping the floor of the balcony on the same level as the terrace.

The general plan (Fig. 1) makes clear that the Odeion split the southern part of the old market square into two lesser areas. This adjustment served the practical needs envisaged in the recommendations of the contemporary architect Vitruvius in his section on the design of public squares (V, 1, 2): "The dimensions of the forum ought to be adjusted to the audience lest the space be cramped for use, or else, owing to a scanty attendance, the forum should seem too large. Now let the breadth be so determined that when the length is divided into three parts, two are assigned to the

<sup>1</sup> This hypothesis makes intelligible the confusion in the late lexicographer Hesychios (5th century after Christ?), *s. v.* ὠδείον· τόπος ἐν ᾧ πρὶν τὸ θέατρον κατασκευασθῆναι οἱ ῥαψῳδοὶ καὶ οἱ κιθαρωδοὶ ἡγωνίζοντο. In the present state of our knowledge it would be idle to review the long controversies over the position and nature of the Orchestra and the relation between it and the Odeion; the literature is conveniently assembled in Judeich, *Topographie von Athen*<sup>2</sup>, pp. 340 f., 350.

breadth. For so the plan will be oblong, and the arrangement will be adapted to the purpose of the spectacles."<sup>1</sup>

In the Forum Romanum a similar provision for the convenience of spectators watching ceremonies and games in the square was made in the balconies at the level of the second storey in the façades of the great basilicas to north and south, viz. the Aemilia and the Julia. It may be significant that both these structures were worked on in the time of Augustus; the Aemilia was rebuilt at the expense of Augustus after a fire in 14 B.C. while the Julia, which had been dedicated incomplete in 46 B.C., was finished by Augustus and then, having soon afterwards been burned, was rebuilt by Augustus in time to be dedicated in 12 A.D.<sup>2</sup>

Another glance at the general plan (Fig. 1) will show that our Odeion was centred precisely between the west and east sides of the Agora, i. e. between the front of the Metroon and the terrace of the Stoa of Attalos. The architect's insistence on the axial position is emphasized by the attendant difficulties which he was prepared to face at the northeast corner of his building: the new structure was jammed all too close against an earlier monument that flanked the Panathenaic Way while the quadriga base projecting from the north façade of the Odeion was swung appreciably out of line to avoid the same monument.

Clearly, therefore, our architect was very conscious of the relation between his building and its setting, so that we too should give some thought to the ensemble: a large and lofty building placed at the back and on the axis of a colonnaded square. The design which we have recovered stands out as a bold example of the type of planning that culminated in and is most familiar from the Roman imperial fora.<sup>3</sup> Prototypes, to be sure, are not lacking in the Hellenistic cities of Asia Minor: the Sanctuary of the Mother of the Gods at Mamurt-Kaleh, the Sanctuary of Zeus at Priene, the western part of the upper marketplace at Pergamon, the North Market of Miletos, the Agora of Assos. Our designer may well have had such precedents in mind. But other sources are to be sought for certain elements of the design particularly for the mechanical axiality in the setting and for the towering mass

<sup>1</sup> Translation by F. Granger, Loeb Classical Library.

<sup>2</sup> S. B. Platner and T. Ashby, *A Topographical Dictionary of Ancient Rome*, Oxford, 1929, s. v. Basilica Aemilia and Basilica Julia; Schultze, *Basilika*, pp. 34 ff.; G. Lugli, *Roma Antica*, Rome, 1946, pp. 172 ff. In the case of the Aemilia, stairs led up at either end to a second floor above the portico and the row of rooms that flanked the south side of the basilica. In the Julia the second floor above the aisles is restored with an open arcade toward the outside as well as toward the central hall. (Cf. the restoration in C. Huelsen, *The Forum and the Palatine*, New York, 1928, p. 17, fig. 7).

<sup>3</sup> The development of the type has recently been traced by Einar Gjerstad in *Opuscula Archaeologica*, III, 1944, pp. 40-72: "Die Ursprungsgeschichte der römischen Kaiserfora," with a good series of plans and abundant references to the literature. Cf. also A. Boëthius, "Roman and Greek Town Architecture," *Göteborgs Högskolas Årsskrift*, LIV, 3, 1948, p. 5.



of the building that was so aggressively to dominate the whole square through the remainder of antiquity. For these features more likely prototypes are to be found in Rome: in the Forum Romanum as it was after the construction of the Temple of the Deified Julius Caesar, above all in the early imperial fora of Julius and Augustus. In all these cases a large building set high on the axis at one end of the square was designed deliberately to dominate the colonnaded area in front. For the possibility of interrelationship the chronology is of importance. The Temple of the Deified Julius was authorized by the Triumvirs in 42 B.C. but was actually built by Augustus alone and dedicated in 29 B.C. The Forum Julii was apparently begun in 51 B.C.; the Temple of Venus that formed its focal point was vowed at the Battle of Pharsalus (48 B.C.); temple and forum were dedicated in 46 B.C. but the forum remained to be finished by Octavian after the death of Julius. The Temple of Mars Ultor, which was to be the central element in the Forum Augusti, was vowed by Octavian at Philippi (42 B.C.); work on the forum dragged but both forum and temple are reported to have been dedicated in 2 B.C.<sup>1</sup> In view of the evident similarity in basic design between the Athenian project and the fora in Rome and having regard for the chronological priority of the fora, we infer that our architect was aware of and influenced by the developments in the Capital.

A word on the relationship between the Odeion and two of its contemporary neighbors. Dinsmoor has shown that the Temple of Ares, built in the third quarter of the fifth century B.C., was transplanted to the Agora in the time of Augustus and re-erected near the middle of the west side of the square.<sup>2</sup> The rear end of the temple was kept as far to the west as the line of monuments along the Great Drain would permit; its front faced eastward across an open stretch of the square. Some regard was shown for the venerable Stoa of Zeus, the façade of which was left unobstructed, and likewise the approach to the broad thoroughfare that led up the hill to the Hephaisteion was kept clear. The chief motive behind the choice of site for the temple would seem to have been similar to that which played so large a part in the placing of the Odeion, viz. a desire to have a building of dominant scale on the axis of an open area. This hypothesis cannot be checked until such time as the northern limit of the Agora has been fixed, but we may one day discover that the east front of the Temple of Ares was centred between the façade of the Odeion on the south and the Stoa Poikile on the north. Such a disposition would, of course, imply the priority of the Odeion: something which is already implicit in the fact that the temple agrees more closely in orientation with the Odeion than with its older neighbors to the west.<sup>3</sup>

<sup>1</sup> Platner and Ashby, *Topographical Dictionary of Ancient Rome*, s.v. Julius, Divus, Aedes; Forum Julium; Forum Augustum.

<sup>2</sup> *Hesperia*, IX, 1940, pp. 1-52.

<sup>3</sup> Dinsmoor had already argued for the earlier date of the Odeion (*Hesperia*, IX, 1940, p. 51).

The great marble altar that lies between the northwest corner of the Odeion and the Metroon is another late intruder in the old square.<sup>1</sup> Built in the latter part of the fourth century B.C. apparently as the principal altar and the focal point of the great Lycurgan design for assembly place and colonnades on the Pnyx,<sup>2</sup> the altar lost its *raison d'être* on the hilltop as the Pnyx was abandoned by the Assembly in favor of the Theatre of Dionysos. In order that its usefulness might be retained and its beauty displayed the altar was then brought down to the Agora and re-erected in the southwest quadrant of the square, i. e. in the very midst of the civic establishments (*τὰ ἀρχεῖα*) and, more precisely, on the very axis of the Metroon-Bouleuterion complex. The letters cut on the marble blocks by the masons who moved the altar indicate a date in the first century B.C. for the operation. The transplanting of the altar would seem to have preceded the erection of the Odeion inasmuch as the altar appears to be sited without respect for the Odeion whereas the west balcony of the Odeion may be thought to have been designed in part at least to accommodate spectators who would view the ceremonies that must have centred about the altar.

One practical point remains. The Odeion took up a large proportion of the open space in the old square, space that had undoubtedly been used not only on the festal occasions proper to the Orchestra but also for other public purposes such as the selection of jurymen and perhaps even for the more mundane activities of a market place. Such an intrusion, however, would have been made tolerable and may, indeed, have been suggested by the previous provision of additional space in the Market of Caesar and Augustus, which was begun with funds made available by Julius Caesar presumably after Pharsalus (47 B.C.), completed with the help of supplementary grants from Augustus and dedicated probably *ca.* 10 B.C.<sup>3</sup> Both building programs were doubtless motivated by the need for more up-to-date and convenient accommodation, in the one case for purely market purposes, in the other for musical performances.

As to the sequence of events, it may be worth while to note a precise parallel in the city of Rome. About the year 54 B.C. Julius Caesar conceived the idea of building a new forum to supplement the old Forum Romanum. Work was probably begun on the new forum in 51 B.C. but in 42 B.C., long before that work was completed, the Triumvirs authorized the erection of a temple to the deified Julius Caesar. The great new temple, set at the east end of the Forum Romanum, at once filled up a not inconsiderable part of the old square.<sup>4</sup>

<sup>1</sup> R. Stillwell, *Hesperia*, II, 1933, pp. 140-148.

<sup>2</sup> *Hesperia*, XII, 1943, pp. 299 f.

<sup>3</sup> *Hesperia*, IX, 1940, p. 50.

<sup>4</sup> Platner and Ashby, *Topographical Dictionary of Ancient Rome*, s. v. Forum Julii and Julius, Divus, Aedes.



## SECOND PERIOD

The original scheme of the building underwent several radical alterations, probably all related to each other: the auditorium was greatly reduced in size by the shifting of its south wall toward the north; the small north porch was demolished; the scaena was turned into a long porch facing north, its entablature supported by a series of square piers adorned with colossal figures in high relief; the new porch was made accessible from the north by means of seven flights of marble stairs separated from each other and flanked by eight long pedestals apparently for statues of seated figures; the building was re-roofed, for the most part with new tiles. These various changes may now be dealt with *seriatim*.

*Shifting of the Cross Wall*

The most striking structural change of which we have knowledge in the later history of the Odeion was the shifting northward of the transverse wall between auditorium and lobby by some 7.66 m. The excavation revealed the small-stone packing for the foundation of the original cross-wall throughout the breadth of the building (Pl. 16). Not a block of the wall itself remained in place, but here and there a shred of poros from the bottom of a squared block was detected on top of the packing, enough to show that blocks had once rested there. After the removal of the blocks the trench left in the earth had been carefully filled with hard packed clay, obviously to prevent the settling of the floor.

The line of the new wall is attested by many of its surviving blocks, which owe their preservation largely to the fact that they were overlaid by one of the concrete foundation walls of the Gymnasium (Pl. 26a). The new foundation was only 1.30 m. wide as compared with the 2.00 m. of its predecessor and was of quite different construction, consisting in its surviving part of two rows of re-used poros blocks of random size and shape, resting directly on the surface of the bedrock.<sup>1</sup> Against the north face of the foundation toward its west end are indications of two buttress-like projections each *ca.* 1.00 × 1.20 m. in outline and separated from each other by an interval of *ca.* 3.10 m. One poros block remains in place in the western of the two beddings. Elsewhere to the north of the wall the bedrock has been too much disturbed to allow one to say whether or not the series continued. The purpose of the beddings is not clear, but it is conceivable that they carried additional underpinning for the interior columns in their new position. This would obviously imply some irregularity in the column spacing such as might have been necessitated by breakage of members of the entablature.

<sup>1</sup> The most characteristic of the re-used material is a series of three wall blocks of gray poros with sockets for horizontal beams cut in their upper corners. The blocks measure 0.59-0.60 m. in height, 0.45-0.46 m. in thickness and 1.12-1.23 m. in length. That these blocks derive from the original fabric of the Odeion itself is made improbable by the complete absence of stucco.

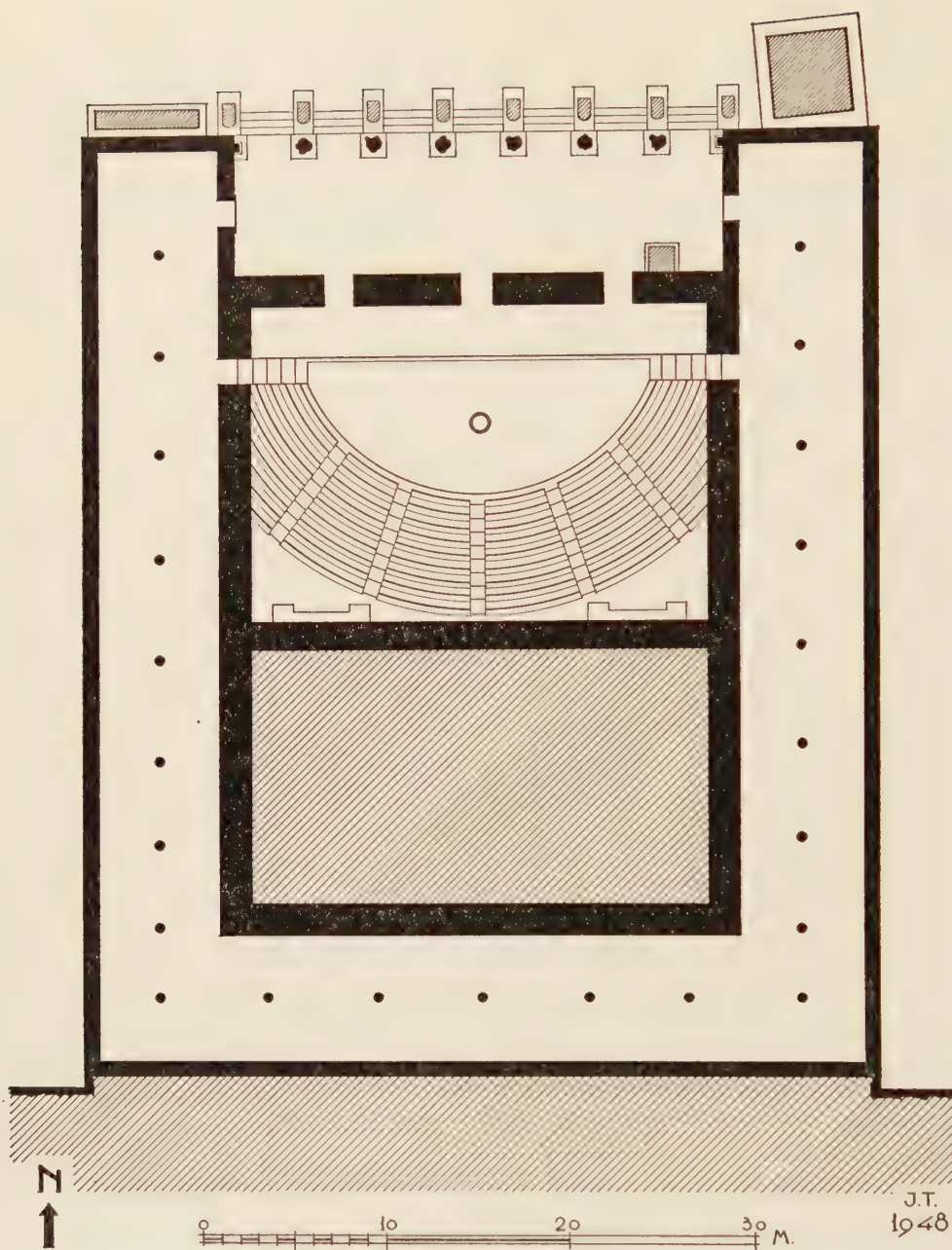


Fig. 15. Plan of the Odeion, Period II, Restored



That some at least of the free-standing round columns of the building were dismantled and re-set in antiquity is indicated by the presence of a mason's mark on the underside of a fragmentary capital (A 1138; Pl. 35c). Roughly cut are the letters  $\text{K H O } \Theta \text{ Ç } [ \text{ } ]$  ., varying in height from 0.012 to 0.035 m. There remains only a small fragment from the outer edge of the underside of the column. Its curvature and the flat treatment of the main rib of the acanthus mark it clearly as from one of the round columns; it might have come either from the south end of the building or from the transverse colonnade.

The place of finding of the surviving capitals of the interior series agrees well with the supposition that in their second period of use they rose above the later transverse foundation (Pl. 16). Three of the largest fragments (A 471, 536 and 1154) lay in the south central part of the Odeion, some 17 m. to the south of that foundation; one almost complete capital (A 1153) lay near the northeast corner of the Odeion, some 19 m. to the north of the line of the wall, while a sizeable fragment (A 1155) was found in the southeastern part of the later auditorium, 4 m. to the north of the foundation.

It may be assumed that the material from the upper part of the original cross wall and the stylobate for its columns were re-used in the new position. It seems probable that the area between the new transverse wall and the original lobby was filled up to the level of the floor of the lobby, so as to form one large hall. From the cross section (Pl. 18) it will appear that the floor level of such a room would have been considerably higher than the back of the surviving part of the auditorium; no trace of a connecting stairway has come to light.

The shifting of the cross-wall, so troublesome and costly in itself, had as an immediate consequence the reduction of the seating capacity of the auditorium by one half, i. e. from about 1,000 to about 500. The move, therefore, demands justification. The most probable explanation is that the change was necessitated by the collapse of the roof. Of the resultant damage several indications have already been noted. A large proportion of the marble floor of the orchestra had been destroyed long before the final abandonment of the building (p. 62). One of the marble benches of the auditorium had been badly chipped and then roughly smoothed (p. 63). Similar damage and rough repair have been observed on a pedestal for a bronze statue (pp. 80 f.). Additional evidence is given by the mason's marks noted above on the cornice block (p. 48, note 1) and on one of the round capitals (see above); both of these heavy members had been re-set in antiquity.

Since there is nothing to suggest that the damage to the building was caused either by fire or by hostile action, we may suppose that it came about through the collapse of the wooden framing of the roof. The intention behind the subsequent

shifting of the cross-wall was evidently to reduce the maximum span above the auditorium, and this it did by the length of two bays, i. e.  $2 \times 3.83 \text{ m.} = 7.66 \text{ m.}$ <sup>1</sup>

### *Stairs in the North Façade*

The place of the original porch in the north façade of the Odeion was taken by a series of seven marble stairways that were separated from one another and flanked by long monument bases projecting from the front of the building (Pls. 23, 28b, 29; Fig. 15). Such an arrangement implies that the north façade of the building was opened up, either by inserting a corresponding series of seven doorways or, more likely, by replacing the wall with a series of isolated supports. It will be observed that the projecting bases, and so presumably the supports in the line of the façade behind them, corresponded with the pilasters in the upper storey of the central core of the building.

In preparation for the laying of the new stairs, the sloping ground immediately in front of the façade was planed down about 0.30 m. so that the difference in level between this new surface and the floor of the scaena (some 0.80 m.) required probably four steps.

Of the stairs there remain in position the lowest steps in the easternmost and westernmost places, two small pieces of the first step of the second stair from the west and the impression in the earth left by the bottom step of the third stairway from the east. Elsewhere late disturbances have obliterated all traces. Of the flanking monument bases, the second and third from the east, the first and second from the west are now represented by blocks *in situ*, the first from the east and the third from the west by impressions in the soft bedrock. The easternmost stairway measured 2.69 m. wide, the second from the east *ca.* 2.40 m., the westernmost 2.90 m. and the second from the west 2.40 m. The precise widths of the remaining stairways are no longer determinable. In the restored plan (Fig. 15) we have suggested that the middle stair was slightly wider than its neighbors, a scheme that would result in wide stairs on the axis and at either extremity where traffic was probably heaviest.

The two surviving blocks in the first step of the easternmost stairway are both re-used, and both, as noted above, probably derive from the original north porch. The height of the riser is 0.29 m.; the width of the tread of the first step in the second period is 0.45 m. as shown by a setting line for the second step (in the first period the tread measured *ca.* 0.32 m.). The two blocks from the first step of the westernmost stairway are likewise second-hand but from elsewhere. The riser is again 0.29 m. high.<sup>2</sup> Re-used also are the one complete and one fragmentary block in the second

<sup>1</sup> Cf. the reduction in the span of the Ekklesiasterion of Priene effected by shifting the interior columns closer to the middle of the building (Wiegand and Schrader, *Priene*, pp. 226 f.).

<sup>2</sup> Both blocks are of Hymettian marble and both show good Hellenistic workmanship from their original use. The one ( $0.48 \times 1.73 \times 0.29 \text{ m.}$  high) probably comes from a monument base;



stairway from the west. The riser here is only 0.222 m., the tread of the first step 0.42 m. as given by a setting line.<sup>1</sup>

The projecting monument bases between the stairways consisted in their lowest parts of hollow shells built up of thin orthostates (Pl. 28b). The projection from the face of the original north wall of the Odeion is regularly 2.40 m.; the width of the two bases that can now be measured with precision is 1.10 m. for the second from the east and 1.20 m. for the second from the west; the height of the orthostates is 0.72 m. It would seem probable that the crowning block of the base was on a level with the second step from the top in the adjoining stairways. The outer faces of the pedestals as preserved are rough and unsightly and the junction between stairs and pedestals is by no means precise; yet there is no trace of the use of either stucco or marble veneer.<sup>2</sup>

At some late date in the history of the Odeion the easternmost stairway was dismantled in order to make room for a large monument, the concrete foundation of which alone survives (Pls. 23, 28b). All the marble steps save the lowest were removed and concrete was poured in to the full width between the pedestals and was carried out 0.60 m. beyond the ends of the pedestals so that the overall dimensions of the new foundation were  $2.75 \times 3.00$  m. To the north of the surviving marble step the concrete was set down 0.50 m. in the bedrock, suggesting that the monument to be supported was of very considerable weight; we have no further indication of its nature.

### *Colossal Figures*<sup>3</sup>

#### Sculpture

The colossal marble figures, i. e. the "Giants" that have for long been numbered among the familiar landmarks of Athens, seem certainly to have been carved originally for the decoration of the Odeion in its second period and to have been re-used in the great Gymnasium that was erected above the ruins of the Odeion about A.D. 400. That the statues had been re-set already in antiquity is shown clearly by two series of setting

the lower edge of its one long finished face is neatly drafted with a cymation at one end, the other end having anathyrosis; the next course above was set back *ca.* 0.18 m. from the face of the preserved block. The other block is broken away at one end; it now measures  $0.73 \times 1.12 \times 0.26$  m. high; the one remaining long side has anathyrosis; the two short ends have finished surfaces.

<sup>1</sup> The eastern piece of Hymettian marble retains its original dimensions:  $0.48 \times 0.21 \times 0.222$  m. high. Both ends show anathyrosis. The western piece is a mere scrap of Hymettian marble.

<sup>2</sup> As noted above (p. 70), the blocks in the second pedestal from the east and in the first from the west were probably taken from the original north porch. The one remaining large rough poros block in the third pedestal from the east is likewise re-used.

<sup>3</sup> The most comprehensive previous study of the "Stoa of the Giants" is that by Ch. van Essen, "Le Monument dit Portique des Géants à Athènes," *B.C.H.*, L, 1926, pp. 183-212. For the bibliography cf. also C. Wachsmuth, *Die Stadt Athen im Altertum*, II, Leipzig, 1890, pp. 526 f.; Judeich, *Topographie von Athen*<sup>2</sup>, p. 330.

marks on the tops of their pedestals. That they antedate the Gymnasium on the site is indicated by the fact that a hand from one of the figures (No. 13, p. 108) and at least one fragment from one of their pedestals (No. 5, pp. 106 f.) had been incorporated in the concrete foundation of the Gymnasium. Three of the figures now stand in the places assigned to them in the Gymnasium; several fragments came to light in the area of the Odeion in the course of the current excavations, while two of the heads which had made their way to Eleusis have been brought back and re-attached to their appropriate shoulders.

The colossal figures were carved in high relief against the faces of square piers. The faces of the piers, insofar as they were not covered by the monstrous forms, were panelled, the depressed area being bordered by a cyma reversa moulding. A certain unity both aesthetic and practical was assured by the way in which the creatures wrapped their tails around the piers. The human heads stopped well short of the capitals but the space between shoulder and capital was filled by one of the arms raised and bent inward in a dramatic gesture.

Two breeds of monster are represented, viz. Tritons of heavy build with bearded faces and fishy extremities, and Giants proper with more youthful proportions, unbearded, their legs ending in snakes.

A brief catalogue of the known material is here appended. The marble in all cases is Pentelic marred by occasional veins of foreign matter.

#### COLOSSAL FIGURES: SCULPTURE

1. Triton now standing in westernmost position of Gymnasium Series. Pls. 61-63; Fig. 16.

Both the figure and the square pier are preserved to full height. Height of figure, 2.76 m.; height of pier, 3.09 m. The figure lacks its arms and the tail has been almost entirely broken away from the back of the pier.

This figure, like the Giant No. 9, came to light during the War of Independence and is referred to by Pittakis in 1835.<sup>1</sup> It was re-

erected on its pedestal on June 24, 1858.<sup>2</sup> The head had made its way to Eleusis where it was recorded in 1852 in a sketch by the English traveller Wickenden; it then lay on the floor of the church of Saint Zacharias.<sup>3</sup> By 1888 the head was in the National Museum in Athens and tentatively identified as of Poseidon.<sup>4</sup> In the year 1896 the technician P. Kaloudis recognized the relation between head and torso and set the head in place.<sup>5</sup> Although doubt has been

<sup>1</sup> *L'ancienne Athènes*, Athens, 1835, p. 95.

<sup>2</sup> *Πρακτικά*, 1858-59, pp. 14 ff. An inscription on the back of the pedestal reads: ἀνεγέρθη τῷ 1858 Ἰουνίου 24.

<sup>3</sup> J. Frederic Wickenden, *Seven Days in Attica in the Summer of 1852*, London, 1857, p. 31, pl. 21. I owe the reference to John Travlos.

<sup>4</sup> Kavvadias, *Δελτ.* 'Αρχ., 1888, p. 178, No. 15; *Γλυπτὰ τοῦ Ἐθνικοῦ Μουσείου*, I, Athens, 1890-92, No. 374.

<sup>5</sup> P. Wolters, *Ath. Mitt.*, XXI, 1896, p. 109. For subsequent discussion of the head cf. Ch. van Essen, *B.C.H.*, L, 1926, pp. 207 f., 212; G. Lippold, 'Αρχ. Ἐφ., 1937, pp. 254 f.; G. Becatti, *Rivista del R. Istituto d'Archeologia e Storia dell'Arte*, VII, 1940, p. 92.



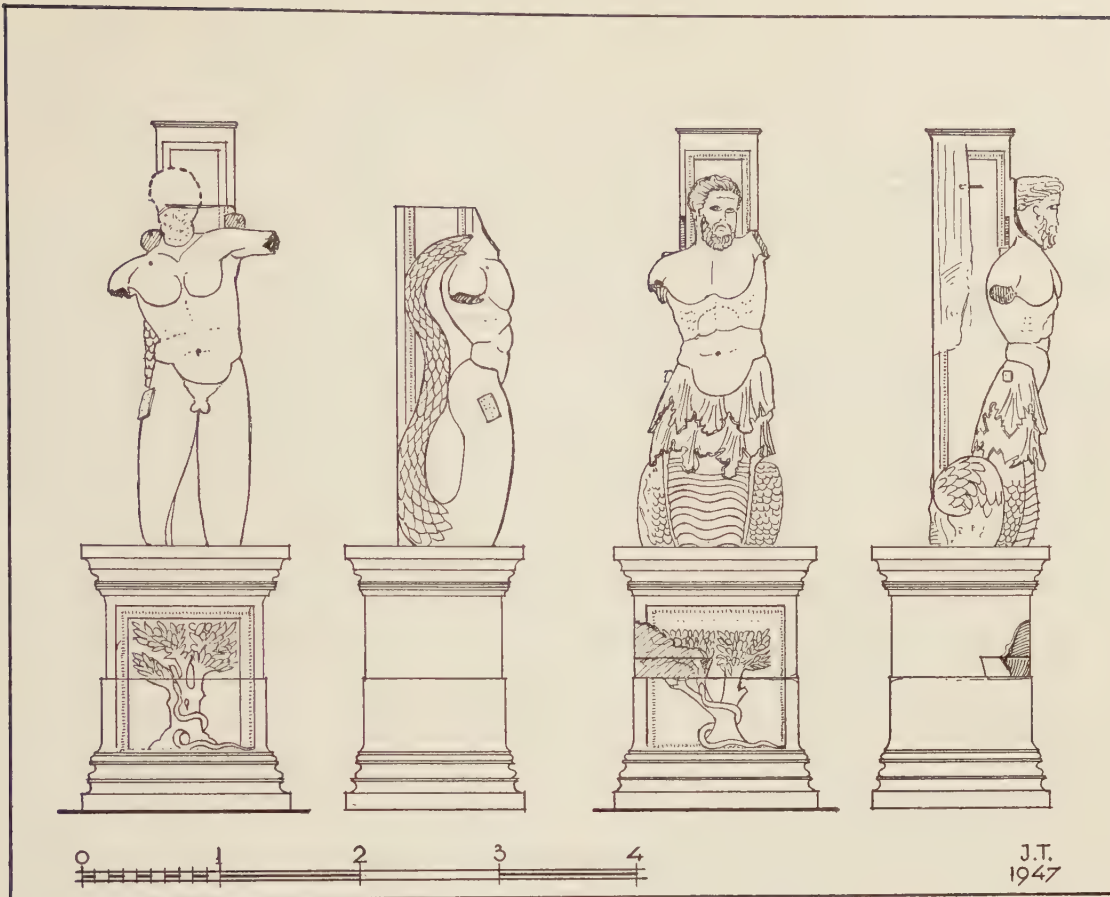


Fig. 16. Giant (No. 9) and Triton (No. 1)

repeatedly cast on their association, a careful examination in 1946 put the matter beyond question: the head actually joins with neck and pier over a large area.

The pier measures 0.56 m. square on top without the crowning moulding. In the middle of its top is a square cutting for a dowel together with a pour channel. On the east side of the pier near the top is a cutting for a clamp, which was intended to check the progress of a vertical crack in the marble and which may have been inserted when the figure was set up by the builders of the Gymnasium.

The figure looks to the proper left; its left arm was raised high; its right hung close by its side as shown by the stump of a strut on

the thigh ( $0.08 \times 0.09$  m. at the base, diminishing in size outward). The transition from the human to the piscine form is concealed by a double band of acanthus leaves. The fishy tails performed one complete spiral on either side of the pier, then came together at the middle of the back of the pier and rose, intertwined, to shoulder height; thence they were brought forward close along the proper right side of the human head, supported on a strut that has left its mark on the back of the shoulder. The actual tail was probably cut from a separate piece of marble and pinned in place, gaining further support from a neat rectangular cutting in the corner of the pier.

The surface is smooth but not polished; rasp marks remain here and there. The running drill has been used fairly freely in hair and beard.

**2.** Triton standing upright, second from the East in the Gymnasium Series. Pl. 64.

Both figure and pier still stand to their original heights of 2.70 m. and 3.09 m. respectively. Practically the whole surface has been very much battered. The head, however, has never been detached, and the tail is better preserved than on No. 1. In the top of the pier is a square dowel hole with a deeper sinking in its middle which suggests a second use.

This, the third figure of the series to make its reappearance in modern times, was mentioned in 1853 as a new discovery.<sup>1</sup> After being more completely exposed by the Greek Archaeological Society in 1858/59, it was re-erected on a modern pedestal built on the ancient foundation at some time between 1890 and 1905, perhaps when the area was put in shape by the Archaeological Society in 1895.<sup>2</sup>

The figure is of precisely the same type as No. 1 and, like No. 1, had its head turned slightly toward the proper left. The left arm was certainly raised; the right, as shown by the stance of the figure, must have been lowered. The point on the thigh where a strut to support the hand might be expected on the analogy of No. 1 has on No. 2 been broken or cut away. The intertwining fishy tails were carried up the back of the pier and brought forward over the right shoulder as in No. 1.

**3.** Head and Neck of a Triton (S 1214). Pl. 65.

The head is reported to have been found at Eleusis in the region of the Frankish Tower in excavations conducted by Philios between

1882 and 1895; while it remained in the Eleusis Museum it bore the inventory number 72.<sup>3</sup> On July 5, 1949, the head was brought to Athens and deposited in the Agora Museum, through the kind offices of Mr. John Papadimitriou, Ephor of Attica. The neck and shoulders were found in the current excavations between the north front of the Odeion and the present pedestals of the colossal figures. The area of contact between the two marbles is confined to the region of the chin. Apart from a mass of whisker and the tip of the nose the front part of the head is well preserved; it shows only slight weathering. The neck retains a trace of the pilaster on the proper right side. Only the spring of the shoulders remains. The head was turned slightly to the proper right.

Total height, 0.70 m.; height of head including hair and beard, 0.57 m.; height of face from middle of mouth to hair line, 0.21 m.; width of face at level of eyes, 0.24 m.

**4.** Lower part of a Triton (S 1215). Pl. 66a.

Found in the current excavations in the area of the second pedestal from the west in the Gymnasium series. Height, *ca.* 1.00 m.

There remains a fragment from the lower proper right side of a Triton, showing the paunch, the upsweep of the tail and the acanthus leaves. A small area of the original resting surface is preserved. The modelled surface is but roughly worked toward the bottom.

The subsequent argument will show that No. 4 must derive from the same figure as No. 3.

**5.** Fragment from the lower part of a Triton (S 1216). Pl. 66b. Provenance as of No. 4. Maximum dimension, 0.65 m.

The piece comes from the back of the proper right lower part of a Triton, and retains the

<sup>1</sup> *Arch. Anz. zur Arch. Zeit.*, XI, 1853, cols. 296, 361.

<sup>2</sup> Jane Harrison, *Mythology and Monuments of Ancient Athens*, London, 1890, p. 20, fig. 5, shows only the westernmost (No. 1) and easternmost (No. 9) figures in place. Baedeker, *Greece*<sup>3</sup>, 1905, p. 64, refers to the three figures as though standing. *Πρακτικά*, 1912, pp. 91 ff., figs. 1 and 2, show the three statues on their bases.

<sup>3</sup> Wolters, *Ath. Mitt.*, XXI, 1896, p. 109; Ch. van Essen, *B.C.H.*, L, 1926, pp. 207 f.



upward sweep of one of the fishy tails, as also a little of the resting surface. Up to a height of 0.18 m. the surface is very roughly finished and was clearly not meant to be seen.

The similarity in tooling suggests that No. 5 is to be associated with No. 4.

**6. Right Hand of a Triton (S 599). Pl. 67a and b.**

Found in modern levels in the area of the westernmost Triton of the Gymnasium series. Maximum preserved dimension, 0.315 m. There remains part of a right hand clasping a conch shell, much weathered and battered. The stump of a rectangular strut overlaps the outer edge of the palm and the shell. The strut measures in cross-section 0.045 m. square.

This hand might derive from one or other of the Tritons that still stand in the Gymnasium series, i. e. No. 1 or 2; the association with No. 1, however, is probable since the strut in both No. 1 and No. 6 is very close to a square in section. In view of the heavy weathering, it is probable that this hand survived the disaster of A.D. 267 and was still attached to the Triton in the Gymnasium.

**7. Right Hand of a Triton (S 596). Pl. 67c and d.**

Removed from a Byzantine foundation on the surface of the burnt debris above the east end of the orchestra. Maximum preserved dimension, 0.425 m.; girth at wrist, 0.42 m. A right hand clasping a conch shell; heavily weathered on the side of the thumb, fresh on the other side. On the outer edge of the back of the hand is the stump of a rectangular strut  $0.045 \times 0.065$  m. in cross-section.

This hand also might be associated with either No. 1 or No. 2; its place of finding points rather to No. 2. It is probable that this hand was broken off when the Odeion burned in A.D. 267 and that the Triton was set up in the Gymnasium minus its right hand.

**8. Fragment from the Tail of a Triton (S 1344). Pl. 66c.**

Found in the current excavations between the north front of the Odeion and the colossal figures in their present positions. Preserved length, 0.19 m.; maximum girth, 0.465 m. Broken at both ends. Surface roughly tooled and moderately weathered on one side only.

The fragment must come from just above the tail proper and will have formed part of the loop in which the fishy extremity of the Triton was carried from the back of the pier to the Triton's shoulder. There are no scales on this part but a low spine runs down its back.

**9. Giant standing in the easternmost position of the Gymnasium Series. Pls. 68, 69; Fig. 16.**

The Giant lacks his human head and arms and the heads of his snaky extremities. The pier of this figure, unlike those of Nos. 1 and 2, was not monolithic; its upper part was cut in a separate piece and fastened to the lower by means of two dowels of which the cuttings remain. Height of figure and pier as preserved, 2.47 m.

The Giant looked toward his proper left; the left arm was raised; the right hung close by the side as indicated by the stump of a strut on the thigh measuring  $0.11 \times 0.17$  m. at its root. The snaky extension of either thigh makes its sinuous way up the side of the pier and thrusts forward above the shoulder. Each snake head was cut in a separate piece and attached by means of one dowel in the snake's neck and another in the human shoulder; only the dowel holes remain.

This figure must be the colossus referred to by Pittakis as standing on its pedestal in 1835.<sup>1</sup> It had shortly before that time been disengaged from modern construction and may indeed have stood upright in its present position since late antiquity.<sup>2</sup>

<sup>1</sup> *L'ancienne Athènes*, p. 95. Gerhard's drawing in *Annali dell' Istituto*, IX, 1837, pl. G shows the Giant erect on his pedestal; on the same plate is illustrated also the pedestal of No. 1.

<sup>2</sup> L. Ross, *Archäologische Aufsätze*, I, Leipzig, 1855, p. 259.

**10.** Fragment from the Head of a Giant (?) (S 1367). Pl. 70a.

Found in the Stoa of Attalos whither it had been carried, presumably, by the builders of the "Valerian Wall." Preserved height, 0.26 m. Part of the upper proper left side of the head remains. The flesh surfaces show rasp marks; the hair is heavily drilled; the eyebrows are rendered plastically. Moderately heavy weathering.

This head is appreciably smaller in scale than the heads of the Tritons. In No. 10, for instance, the distance from the middle of the bridge of the nose to the outer extremity of the iris is 0.087 m. whereas in No. 3 the corresponding dimension is 0.105 m. The close similarity in modelling, technique and surface condition makes it very probable, however, that No. 10 derives from the same series. The possibility of its coming from a Triton is ruled out by the striking difference in the hair between No. 10 and Nos. 1-3. It may, however, belong to one of the Giants which were more youthful, unbearded and so presumably slighter than the Tritons in the details of the head.

**11.** Lower part of a Giant (S 1303). Pl. 66d.

Found in the current excavations to the north of the Temple of Ares. Preserved height, 0.57 m. The fragment comes from near the bottom of the proper right back corner, preserving a little of the snaky body and the beginning of the moulded back of the pier. Both body and pier are rough and unsightly toward the bottom where they were obviously not intended to be seen.

Since the corresponding part on No. 9 is preserved, fragment No. 11 must represent a second giant. Inasmuch as the projection of the scaly body from the pier is slight and identical with that on the proper left but much less than that on the proper right side of No. 9, the present fragment must derive from a figure in the opposite stance, i. e. with the right arm up and the left arm down.

**12.** Fragment from the Tail of a Giant (S 1390). Pl. 66f.

Found in the current excavations some 25 m. to the west of the northwest corner of the Odeion. Preserved height, 0.52 m. The fragment comes from midway up the proper left back corner of a pier and retains a short length of a body with pointed scales, hence of a Giant rather than a Triton.

The height of the relief makes it probable that No. 12 derives from a figure in the same stance as No. 11.

**13.** Left Hand of a Giant (S 1202). Pl. 71a and b.

Recovered from the concrete foundations of the Gymnasium in the southwest part of the Odeion. Preserved length, 0.22 m.; width of wrist, 0.15 m. Heavily weathered on the thumb side, fresh on the other side.

The hand clasps a leafy branch. The stump of a rectangular strut ( $0.06 \times 0.08$  m. in section) protrudes from the junction of the outer edge of palm and wrist. This hand, therefore, must come from a figure in the stance of No. 11.

**14.** Left Arm of a Colossal Figure (S 369). Pl. 70b and c.

Found in the current excavations in a level of the late Roman period *ca.* 44 m. southwest of the northwest corner of the Odeion. Preserved length, 0.715 m.; girth just below elbow, 0.58 m., at wrist, 0.39 m. Broken off just above the elbow; the tips of all four fingers missing.

The fragment is a left forearm bent upward at the elbow at a right angle. The hand is open in a dramatic gesture and obviously held nothing. The forearm and part of the upper arm were cut in a separate piece and attached to the stump of the upper arm by means of a bar set in a channel measuring  $0.035 \times 0.05$  m. in section. The bar was secured by a small pin set vertically down through the arm just above the inside angle formed by upper arm and forearm. Stains indicate that both bar and pin were of iron. The surface is rasped, rather rougher above than below, and quite fresh throughout. The veins are carefully indicated.



**15.** Right Hand of a Colossal Figure (S 1221).  
Pl. 71c and d.

Found in the current excavations near the westernmost Triton of the Gymnasium series. Maximum preserved dimension, 0.22 m. About one half of the hand remains, the thumb and fingers being broken away.

The interpretation is difficult and uncertain. The heavy weathering indicates that the hand was exposed, hence probably down by the side or hip and presumably attached to the body by a strut. A line of breakage running diagonally across the palm suggests that the hand held some straight attribute.

**16.** Left Elbow of a Colossal Figure (S 1218).  
Pl. 71e.

Found in the current excavations between the north front of the Odeion and the line of the colossal figures in their present position. Maximum preserved dimension, 0.20 m.; girth just above elbow, 0.56 m. Slightly weathered.

The elbow was bent sharply as in No. 14.

**17.** Forearm of a Colossal Figure (S 1219).  
Pl. 71f.

Provenance as of No. 16. Preserved length, 0.38 m.; girth just below elbow, 0.56 m., just above wrist, 0.38 m. The forearm is preserved from elbow to wrist. The marble is heavily weathered on its original surface and on the break at the wrist; the upper break is comparatively fresh. The hand, therefore, may already have been broken away when the figure to which the arm belonged was re-set in the Gymnasium.

**18.** Fragment of a Scaly Creature (S 1217).  
Pl. 66e.

Found in the current excavations near the northwest corner of the Odeion. Maximum preserved dimension, 0.25 m. Only a small part of a scaly surface remains. The somewhat pointed shape of the scales suggests a Giant rather than a Triton.

The evidence now available permits of the reasonably certain restoration of the arms of the colossal figures together with their attributes. The three figures that are still tolerably complete had each one arm hanging with the hand close by the thigh, the other arm raised high to assure a counterpoise. In the case of the three hands bearing attributes that are well enough preserved at the significant points to permit a decision, we have seen that the hand was close by the body, that it was supported by a strut and that it hung low enough to be exposed to heavy weathering (Nos. 6, 7, 13). The one surviving hand that is shown by its attitude and fresh state to have been raised carries no attribute (No. 14). In view of the serious technical difficulties involved in supporting a great weight in a hand thus raised, this solution was evidently prudent, and it may be assumed to have been employed in all the figures.

As for the attributes, the conch shells of Nos. 6 and 7 may be assigned without question to the Tritons, since the conch is one of the most common pieces of equipment carried by these creatures of the sea. The leafy branch of the hand No. 13 may be recognized at once as the primitive weapon of one of the earth-born Giants. The obscure attribute of the hand No. 15 may also have been a branch or club.

Pedestals, Capitals and Entablature associated with the Colossal Figures.

Both the westernmost and the easternmost of the colossal figures now standing have beneath them pedestals that were put together by the builders of the Gymnasium

from earlier materials. The third figure now erect stands on a purely modern base built on top of a foundation that dates from the time of the Gymnasium. The current and earlier excavations have brought to light several other pieces of the original pedestals. This material may be presented in catalogue form as follows.

#### COLOSSAL FIGURES: PEDESTALS

**1.** Pedestal beneath the westernmost Standing Figure in the Gymnasium Series. Pls. 61, 72a; Figs. 16, 17, 18.

The pedestal is made up of two massive blocks of Pentelic marble resting one on top of the other and rising to a total height of 1.91 m. Base and crown mouldings are completely worked on all four sides. It will be observed in the drawings that the pedestal is not square in plan but appreciably wider in the plane of the front of the figure than it is deep. In the lower northeast corner of the upper block there is a large ancient patch secured by an iron dowel. The principal surfaces of both blocks are hammer-dressed; the crowning mouldings have a smooth finish, whereas the base mouldings are marked by prominent ridges left by a straight-faced chisel *ca.* 0.01 m. wide driven in parallel lines the whole length of the block, a finish that occurs also on the Arch of Hadrian in Athens.

In the top of the pedestal a roughly rectangular depression *ca.* 0.05 m. deep was scooped out for the setting of the Triton in its present position. Toward the front of the top are two square sinkings for dowels which cannot be associated with the figure as it now stands and so must derive from an earlier use. Toward the southwest corner of the block there remains a pour channel with the edge of a third dowel hole which has been partly cut away by and so must antedate the shallow depression of the second period. Toward the northeast corner is a pry-hole which must also have served in the first rather than the second period. The placing of the front pair of early dowels indicates that the original occupant of this pedestal was a Giant rather than a Triton.

If now we climb down from the top and examine the sides of the pedestal, we shall again find ample evidence for two periods of use. The lower of the two blocks is about 0.01 m. larger than the upper in both the east-west and north-south dimensions; the northwest corner of the lower block has been chamfered to make the discrepancy less conspicuous from the front; elsewhere the lower block simply projects beyond the upper. It is clear, therefore, that these two blocks were not originally in immediate conjunction with each other.

The front of the pedestal is decorated with a gnarled olive tree entwined by a serpent carved in relief within a panel. Here again two periods are to be distinguished. The carving of the tree and of the panel moulding on the upper block is identical with that on the colossal figures and on the main crowning moulding of the pedestal respectively; there can be no doubt as to their contemporaneity. The carving on the face of the lower block is different in technique (the surface stippled with a single point rather than smoothed) and appreciably inferior in quality to that on the upper. Yet the upper and lower parts of the representation agree satisfactorily in outline.

The explanation would seem to be that although both the upper and lower blocks derive from the original construction, the lower part of the carved panel in the first period was cut on an intermediate block that had disappeared before the reconstruction so that when the upper and lower blocks had been brought into immediate contact the missing part of the panel had to be carved anew on the previously plain face of the lower block. It is understandable that the intermediate block, not being encumbered with heavy mouldings, was more



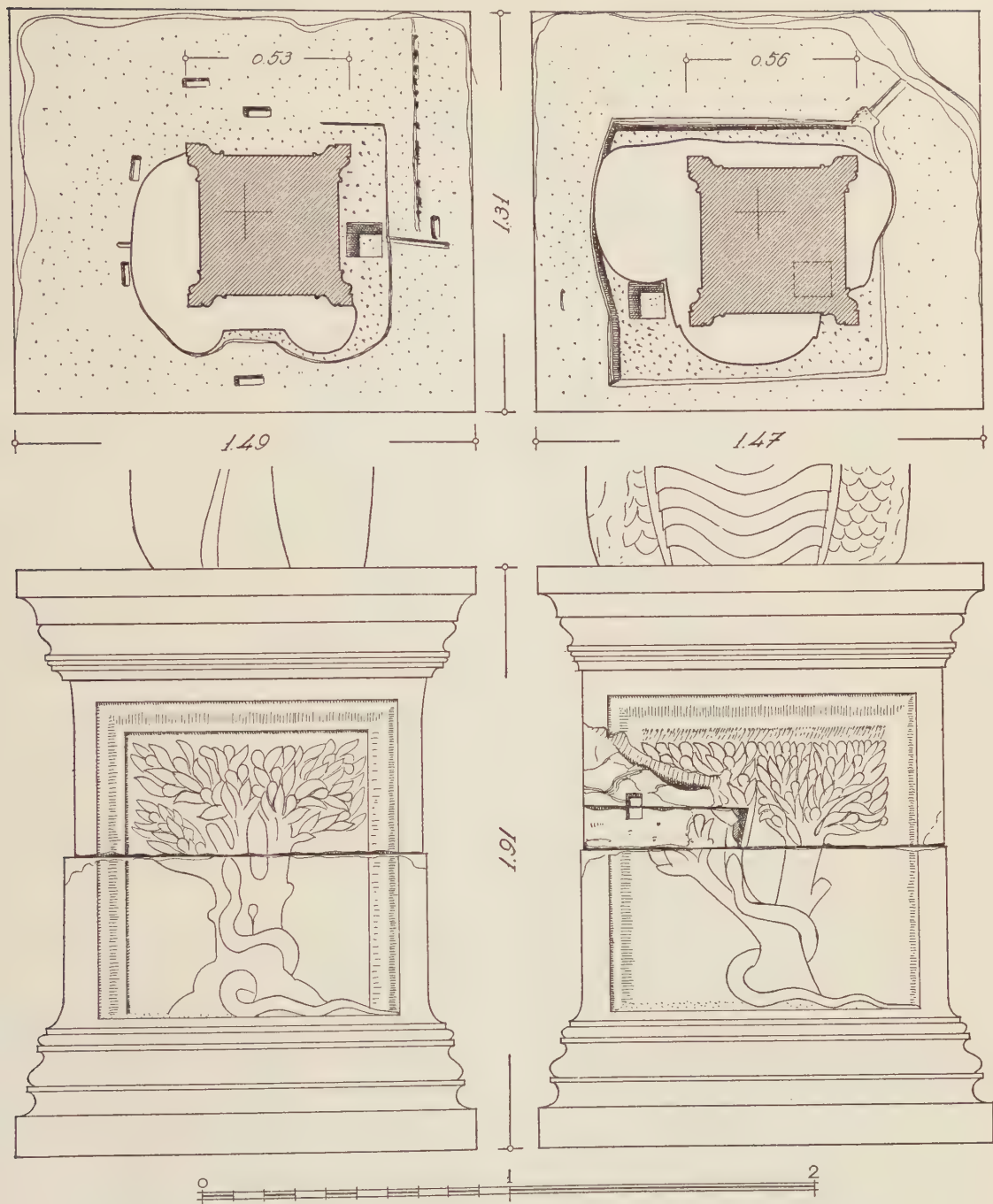


Fig. 17. Pedestals Now Beneath Giant No. 9 and Triton No. 1

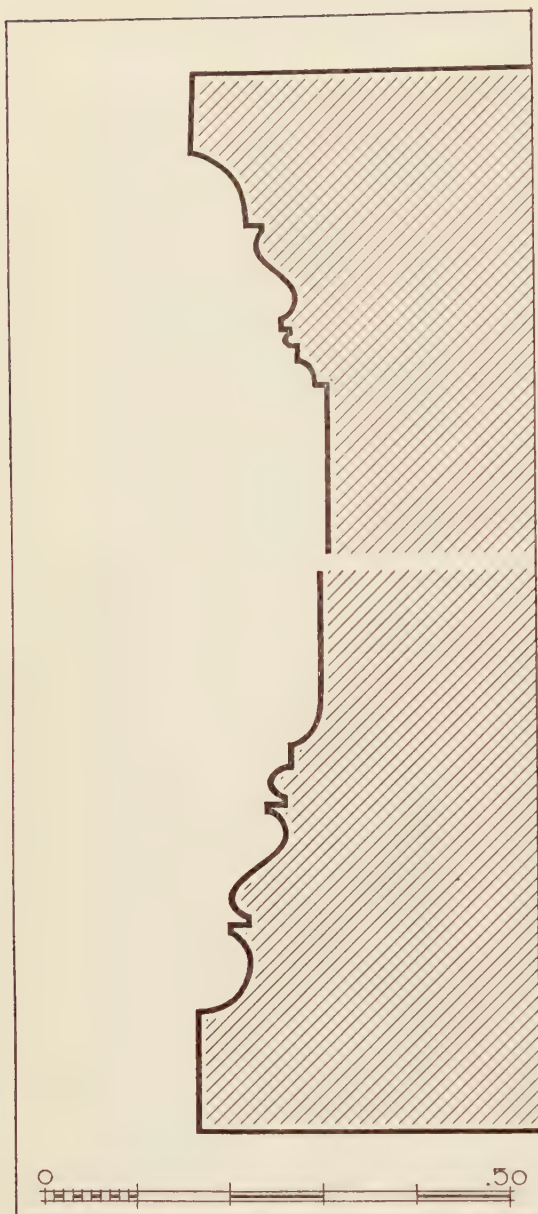


Fig. 18. Mouldings from the Top and Bottom of Pedestals for Colossal Figures

adaptable for re-use and so more likely to be carried away between the destruction of the Odeion and the building of the Gymnasium.<sup>1</sup>

2. Pedestal beneath the easternmost Colossal Figure in the Gymnasium Series. Pls. 68, 72b; Figs. 16, 17.

This pedestal agrees closely in dimensions, scheme of construction and history with that beneath the westernmost figure.

For the setting of the Giant in his present position a depression was worked in the top of the base, 0.05 m. deep on the west side, rising to zero toward the east. Near the middle of the west side of the top is a square dowel hole with pour channel, while the end of a corresponding pour channel projects from beneath the east edge of the present figure; these cuttings clearly date from the first period of use and by their position suggest that the present Giant had been preceded by a Triton on this pedestal. Several pry-holes around the figure may have been employed in either period.

The discrepancy in size between the upper and lower blocks of the pedestal is even greater here than in the westernmost pedestal, the difference in width and depth being 0.04 m. Here again it is quite clear that the carving of the panel on the upper block dates from the first period and that the scene had been completed on the lower block by the authors of the second period.

3. Fragmentary Pedestal in second position from west in Gymnasium Series (A 1176). Pl. 73a; Fig. 19.

Three joining but much battered fragments from an upper block probably of this pedestal were found at the beginning of the current excavations lying on its foundations. The dimensions and scheme of the block are closely similar to those of the two pedestals already

<sup>1</sup> Failure to observe the differences between the upper and lower parts of the panels has misled scholars in interpreting the history of the monument. Ch. van Essen, for instance, regarding the reliefs as not earlier than the time of Diocletian or Constantine, supposed that the pedestals were later than the colossal figures (*B.C.H.*, L, 1926, pp. 199 ff.).



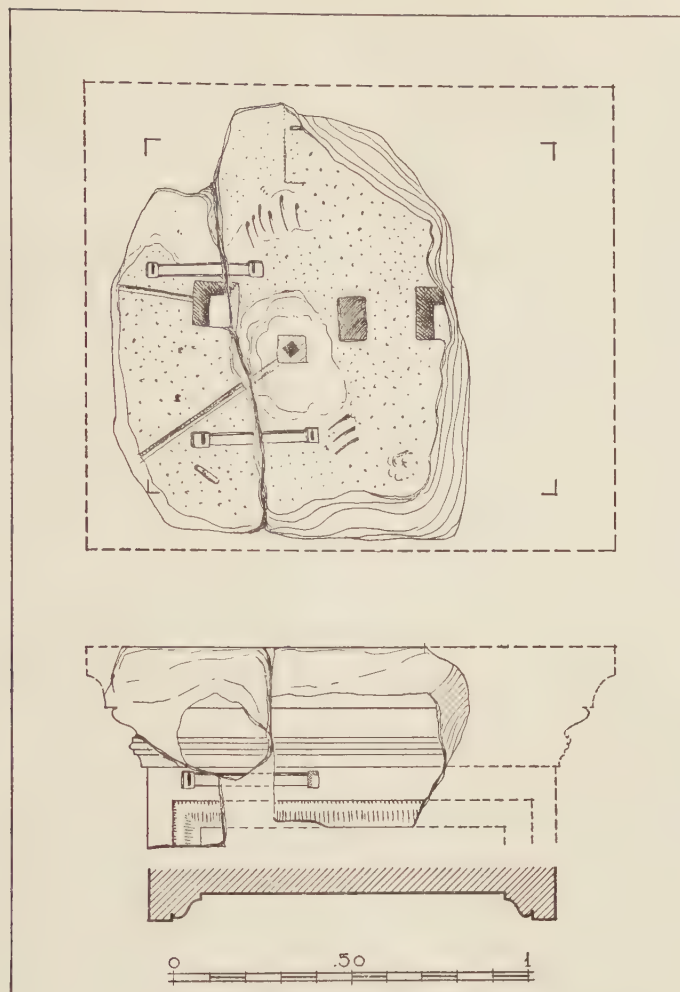


Fig. 19. Fragmentary Top of Pedestal for a Colossal Figure

described, but the cuttings in the top, unobscured by any statue, are particularly illuminating for its history.

To the first period may be assigned the deep lewis hole at the middle of the block, a square dowel hole with pour channel and the edge of a second dowel hole, probably also some if not all of the shallow shift holes. Of the second period will be the deep dowel hole near the middle of the top with its very long pour channel for the fastening of the statue, two

clamp cuttings in the top of the block and one near the top of the principal vertical face of the pedestal, clearly intended for the repair of damage that had occurred between the first and second periods.

Enough of the principal vertical face of the pedestal remains to show that it was panelled like Nos. 1 and 2, but of the panel only the moulding has survived. The placing of the original pair of dowels suggests that the first occupant of the block was a Triton, as on No. 2.

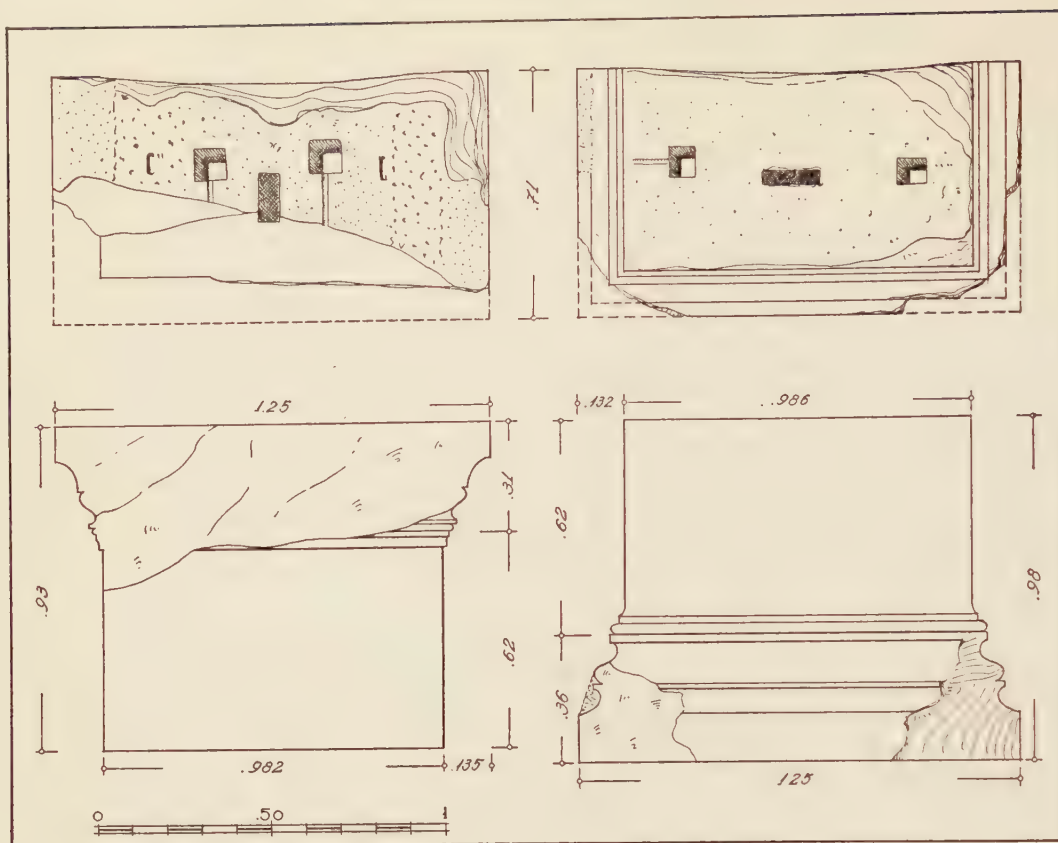


Fig. 20. Top and Bottom Blocks from the Pedestal of an Anta

4. Fragmentary lower block of Pedestal (A 1175). Pl. 73b.

Two joining fragments found in the current excavations to the north of the second colossal figure from the east with which it may be associated. Parts of the top and bottom surfaces and of one vertical face remain, together with a small length of the base moulding. One quadrant of the block has been cut away in late times. In the top of the block are cuttings for a lewis and a dowel. Height, 0.96 m.

5. Fragment of Pedestal with Relief (S 1348). Pl. 73c.

Found in the current excavations to the west of the Odeion. Traces of mortar indicate that it had at one time been incorporated in the foundations of the Gymnasium. Maximum

preserved dimension, 0.37 m. Broken all around and behind.

On the face of the block is the upper part of the trunk of an olive tree encircled by a serpent, whose body has narrowed to a neck at the upper fracture. To the right is a trace probably of the second trunk of a gnarled tree, like that of No. 2 above. The leaves are just beginning at the edge of the upper fracture.

The disposition of tree and serpent indicates that this fragment does not come from a top block. In the quality of its carving and the finish of its background, on the other hand, the fragment is identical with the upper blocks of Pedestals Nos. 1 and 2, but quite different from the lower blocks of those bases. We must, therefore, assign the piece to one of the intermediate blocks hypothesized above.



**6.** Lower block of a Pedestal for an Anta (A 1398). Fig. 20.

Found in the second position from the west in the Gymnasium series, where it may have been employed as part of the pedestal for a (now missing) colossal figure.

This block agrees closely in height and width and in its mouldings with the lower blocks of Nos. 1 and 2 above, but it has only half their thickness. The base mouldings carry round one long and two short sides; at the left end, however, the mouldings are unfinished toward the back. In the middle of the top is a lewis cutting and at either end a square dowel cutting with pour channel. The back of the block shows anathyrosis. The surface finish is closely similar to that on Nos. 1 and 2 above.

**7.** Upper block of a Pedestal for an Anta (A 1177). Pl. 73d; Fig. 20.

Found in the current excavations in a modern cellar wall immediately to the north of the northwest corner of the Odeion. Traces of mortar on the block suggest that it had at one

time been incorporated in the foundations of the Gymnasium. Much of the crowning moulding has been broken away from the long side of the block. As will be seen from the drawings, Fig. 20, this block agrees closely in dimensions with No. 6 above and may well come from the same pedestal. The slight excess of the lower over the upper block is comparable with that noted in the case of the full pedestals, Nos. 1 and 2 above.

The heavy crowning mouldings run around the long and the two short sides of the top, but are unfinished toward the back on each of the short ends. The back is finished with anathyrosis. In the middle of the top is a lewis cutting flanked on either side by a square dowel hole with pour channel. Outside the dowel holes are pry-holes with a shallow cutting for a shifting movement of a bar alongside each pry-hole. The pry-holes are centred 0.67 m. apart and so are suitably spaced for the manipulation of an anta shaft of the same thickness as the piers with which the colossal figures are conjoined, viz. 0.56 m.

Several smaller fragments of pedestals from this series came to light along the north front of the Odeion and others in the Stoa of Attalos where they had no doubt been re-used in the "Valerian Wall."

The capitals from above the piers behind the colossal figures may be recognized with virtual certainty in a number of fragments, six of which came to light in the excavations in the area around the figures, while two have been found in the Stoa of Attalos, where they were obviously *detritus* from the "Valerian Wall" (Pl. 74a). The resting surface of the capital that may be restored from these fragments measures *ca.* 0.57 m. square, a figure which corresponds satisfactorily with the dimensions of the piers. A further bond is provided by the similarity between the capital and the colossal figures in the drilling of the acanthus and in the predilection for a rasped surface finish. The capital was of a composite type with a band of egg and dart (three units) at the base of each face between acanthus leaves at the angles. The middle part of the face of the capital is not represented among the known fragments so that the details of its treatment are not certain. They may be restored, however, on the analogy of the closely similar pilaster capitals on the Arch of Hadrian at Athens, one of which is illustrated in Pl. 74b.<sup>1</sup>

<sup>1</sup> Stuart and Revett, *Antiquities of Athens*, III, ch. III, pl. VIII.

No part of the architrave or frieze from above the colossal figures has yet been recognized. Several of the cornice blocks, however, appear to have survived, three of them incorporated in the foundation beneath the pedestal for the westernmost Triton of the Gymnasium series, two in the corresponding foundation beneath the easternmost Giant and one from the current excavations to the south of the second figure from the east (A 1303-1308). All are of Pentelic marble. Their original length was 1.92 m., i. e. exactly one half the interaxial spacing of the main order and presumably also of the order above the colossal figures. The width of the resting surface of the cornice blocks, *ca.* 0.54 m., is appropriate to the architrave that must have been carried by the square piers behind the colossal figures. The tops of the blocks are flat, their height, 0.28 m. The workmanship is summary, some of the mouldings being only roughly blocked out while in two cases the soffit was not undercut. In the coarseness of their execution the series is comparable with the intermediate cornice on the east end of the Library of Hadrian.

#### Arrangement and Origin of the Colossal Figures

Granted, as the circumstances of finding prove, that the colossal figures were originally part of the Odeion, where did they stand? The fact that practically all the fragments, both those that were re-used in the Gymnasium and the others, were found along the north front of the Odeion points clearly to that part of the building. The enormous bulk of the pedestals and figures calls for very substantial underpinning, certainly something much more solid than the eight long hollow bases that were thrust out from the north façade of the building in the second period. Since there is no trace of other suitable foundations added to the Odeion, we are driven to assume that some of the original wall foundations were made available for the reception of the figures. The heavy weathering on the hands would seem to have occurred while the figures were in their original positions and indicates that they were at least partially exposed to the elements; the fresh state of the heads, Nos. 1 and 3, may be attributed to the protection of an overhanging cornice.

A knowledge of the original number of the colossal figures would obviously help in placing them. A recapitulation of the catalogue of surviving material (pp. 104 ff.) will show positive evidence for a minimum of five figures, of which three were Tritons and two Giants. It is to be noted, further, that of the surviving five, three looked toward their proper left, two toward their proper right. In a composition based on figures of such monumental scale and formal design we may safely hypothecate some such bilateral symmetry as exists in the Porch of the Maidens on the Erechtheion. We are justified, therefore, in restoring a sixth figure with head turned right. Six, then, becomes our new minimum figure. Supposing now we wish to consider the possibility of additional statues, we should again have to observe the laws of symmetry and add not one but two, making eight. If, however, there were originally



eight statues, three must have completely, or almost completely, vanished. This, to be sure, is possible but, in view of the great bulk of the colossal figures and their unsuitability for ordinary re-use, the disappearance of so many is unlikely. We conclude that there were probably six colossal figures in the original scheme.

Turning now to the pedestals, we recall that in addition to the full bases for the colossal figures we have pieces from the bottom and from the top of a half base, clearly intended to support a pilaster to correspond with the piers behind the figures. It is to be remembered also that the colossal figures in combination with the piers, although obviously designed to be viewed chiefly from the front, are also well finished and of some interest behind.

If all the above evidence be taken into account, the most likely position for the colossal figures would appear to be in the line of the north wall of the Odeion, in the central part of the façade that is already seen to have been adorned with the eight long projecting bases and that was not obscured by the monuments that stood on the great bases toward the east and west extremities of the façade. Here, in fact, six free-standing supports were required to fill the intervals between the seven flights of stairs and to carry the entablature of the façade. Pilasters set against the wall in the way indicated by the surviving half pedestal would appropriately close the series to east and west.

A glance at the restored elevation of the north façade (Pl. 60) will show at once that six colossal figures in combination with piers, flanked by pilasters, if evenly spaced in the mid part of the façade, would correspond precisely with the pilasters of the second storey, a most satisfactory correspondence.<sup>1</sup>

The original height of the pedestals beneath the colossal figures is a matter for debate. As pointed out above (pp. 110 ff.), the history of the reliefs on their fronts proves the original existence of at least one intermediate member between the two surviving blocks. That the pedestals were originally high is suggested also by the fact that in the case of both the full pedestals that survive as well as of the half pedestal the lower member is wider than the upper, a discrepancy which could have been taken up in a slight taper in the die of the pedestal. A third piece of evidence pointing in the same direction is the roughly finished state of the lower parts of some of the figures, especially marked in Nos. 4, 5 and 11 (pp. 106 f., 108); this condition indicates that the tops of the pedestals were well above eye level.

In our restored elevation (Pl. 60) we have proposed the insertion of one intermediate block between the surviving upper and lower members; all three blocks being of approximately the same height give a total height of *ca.* 2.86 m. The same drawing

<sup>1</sup> On the restored plan (Fig. 15) it will be observed that the correspondence between the colossal figures thus spaced and the long projecting bases would not be precise on account of the irregular spacing of the long bases. It is probable that in actual fact these discrepancies were largely concealed by the placing of the statues on the long bases.

will show how the plain lower parts of the great pedestals would have served as an effective background for the seated figures on the long projecting bases; it will show also why the relief panels on the pedestals were originally kept toward the top. The piers back of the colossal figures, supported on pedestals of this height, would have carried their entablature at the same level as that around the outer part of the building. In our restoration we have suggested that in this period the north ends of the flanking parts of the building were treated as units, each crowned by a pediment: a scheme reminiscent of the Stoa of Zeus in the Agora. Some such treatment of the north façade in the second period is indicated by the insertion of the antae which call for a pronounced break on the line of the flanks of the main core of the building.

A serious practical difficulty must be recognized in the restoration of the porch of the colossal figures. The evidence as presented above makes it very probable that the piers with the attached figures were placed at the same intervals as the columns of the main order, i. e. with an intercolumniation of 3.83 m. In the main order this very considerable span was bridged by an architrave 0.98 m. thick and 0.75 m. high. The architrave above the sculptured piers, on the other hand, is not likely to have exceeded 0.60 m. in thickness; its height is unknown. On purely technical grounds, however, an acceptable solution is possible. Whereas in the main order the architrave was built up of two beams set side by side and the frieze was cut separately from the architrave, we may suppose that above the sculptured piers architrave and frieze were cut all from a single block.<sup>1</sup> It is conceivable that the advisability of reducing to a minimum the load to be carried above this span induced the architect of the second period to use terracotta rather than marble tiles on the porch, whereas, as we have seen, there is reason to believe that marble tiles were employed in the first period at both the north and the south ends of the building, in the second period only above the south end.

The alternative solution of restoring arches above the sculptured piers is unacceptable on at least two counts: no trace of suitable voussoirs has come to light either in the area of the Odeion or in the "Valerian Wall" and, furthermore, the insertion of arches would raise the entablature so high as to cause serious difficulties in the roofing. That the sculptured piers did not support a roof but formed a free-standing screen is altogether improbable, for all the corollary evidence suggests that a true porch was intended by the remodellers.

We have still to consider the syntax of composition of the colossal figures. It may be assumed that the original three doors in the scaenae frons were retained in the second period of the building. When the north wall was opened these doorways must have been fully visible and very prominent; it is reasonable to suppose, there-

<sup>1</sup> Precisely the same difficulty arose in the Façade of the Colossal Figures at Corinth. There an epistyle bridging a span of 3.04 m. above the corresponding sculptured piers measured only 0.425 m. in width, 0.642 m. in height. Stillwell, *Corinth*, I, ii, *Architecture*, pls. IV and VII.



fore, that the colossal figures were placed in some relation to them and we have accordingly grouped the figures in three pairs, one pair to each doorway. Inasmuch as the attitude of the figures indicates clearly that the theme was one of contest or opposition between Tritons and Giants, it would appear only fair to admit equal numbers of the two breeds. Since we have parts of three Tritons but of only two Giants, we have restored the sixth figure as a Giant; and we suggest that this restored Giant be made to face to his proper right.

With these elements at our disposal we have composed each pair, Triton and Giant, so that both figures appear to be moving away from the axis, while both turn their gaze toward the axis, a scheme thoroughly characteristic of Greek art. Now it will be seen that the restoration according to which two Tritons raise the left hand, one Triton the right, and two Giants the right hand, one Giant the left, permits of an agreeably varied and interlocked composition. This arrangement at the same time possesses a certain practical logic inasmuch as the second and third figures from either extremity have their *latera aperta* covered by creatures of their own kind.

Such a disposition of the colossal figures is confirmed in some measure by the circumstances of their origin. The classicizing style of the sculpture has been pointed out repeatedly by earlier students, but it seems not to have been observed that in their human parts both Tritons and Giants derive directly from the pediments of the Parthenon. To start with the Tritons: for the stance and the lift of the arms one has but to compare the best preserved of our figures with the drawing of Poseidon in the west pediment made by "Carrey" in 1674 (Pl. 75a),<sup>1</sup> or with the same figure as reproduced on the familiar Kertsch hydria (Pl. 76a).<sup>2</sup> For the details of the modelling one must go rather to the fragments of the original torso that are now divided between the British Museum and the Acropolis Museum (Pl. 75c).<sup>3</sup> It will be seen that the modelling corresponds down to the last detail even to the curious deep crater at the base of the breast bone, a feature highly characteristic of the pedimental figures. The prominent veining, in which the Parthenon masters took a naive delight, has been almost obliterated from our torso No. 1 by weathering but is still clearly legible on the neck of No. 3 and on the great arm No. 14. Careful measure-

<sup>1</sup> The best reproduction, from which our plate is taken, is in H. Omont, *Athènes au XVII<sup>e</sup> Siècle*, Paris, 1898, Pl. II. Cf. also L. de Laborde, *Le Parthénon*, Paris, 1848, Pl. 9; *Antike Denkmäler*, I, Pl. VI, 2; A. H. Smith, *The Sculptures of the Parthenon*, London, 1910, Fig. 27. Within a few years of being set up in his pediment Poseidon had already inspired the designer of the Boreas akroterion on the Temple of the Athenians on Delos (F. Courby, *Délos*, XII: *Les Temples d'Apollon*, Paris, 1931, p. 240).

<sup>2</sup> *Comptes-rendus de la Commission impériale archéologique*, 1872, Pl. I; *J.H.S.*, III, 1882, p. 245; K. Schefold, *Untersuchungen zu den Kertscher Vasen*, Berlin and Leipzig, 1934, No. 161, pp. 132 f.

<sup>3</sup> Smith, *Sculptures of the Parthenon*, Pl. X. For the new photograph by Alison Frantz used in Pl. 75c, we are indebted to Mr. John Threpsiades, Acting Ephor of the Acropolis in 1948, who made the photography possible despite the present sad state of the Acropolis Museum.

ment shows, moreover, that the Triton has precisely the same dimensions as the Poseidon. The stance, to be sure, has been brought somewhat closer to the vertical to facilitate the combination of figure and pier, and it will be realized that two out of the three Tritons were mirror images of the original.

That the head as well as the torso of the Triton derives from the Poseidon is made amply clear by setting it alongside the "Carrey" drawing and the Kertsch hydria. Comparison with the heads on the Parthenon frieze will also reveal that the design of our head is Periklean not only in general but in detail: in the single horizontal furrow across the brow, the wide open eye with well rounded ball and heavy lids, the slightly opened mouth and the thick lips.<sup>1</sup>

The pedigree of our Giants is somewhat more difficult to trace. They are so close to the Tritons, however, in scale, in frontality and in their heroic build that one can scarcely question their derivation from the same milieu. In the west pediment of the Parthenon we shall look in vain for a prototype; Poseidon is there opposed by Athena and there is no other male figure of appropriate scale and stance. We are therefore driven to search in the east pediment. The most plausible restoration of the central group (with which alone we are here concerned) is that developed by Rhys Carpenter largely on the basis of the neo-attic adaptation on the Madrid Puteal (Pl. 76b).<sup>2</sup> According to this restoration Zeus sat on the axis of the gable facing right; the newborn Athena moved away toward the right looking backward the while toward her father; Hephaistos hastened to the left but cast a backward glance at the fruits of his midwifery. In the flanking figures of the east pediment, therefore, we have exactly the same kind of formal opposition as in the west pediment, Zeus replacing the olive tree as the central element. The male figure to the left of the axis in the east pediment was clearly the logical choice for a prototype to correspond with the male figure to the right of the axis in the west pediment. On this supposition our Giant should correspond with the Hephaistos of the Madrid Puteal and this he does in a most convincing fashion. If one will but think away the distortion caused to the thighs of our figure by their adaptation to serpentine extremities and their new architectural background, he must admit that in stance, turn of head, proportions and modelling the two figures are exceedingly close. Some discrepancy is to be noted in the disposition of the arms; if a common prototype be admitted, both adapters may have modified the original to meet their respective needs. A final point in common

<sup>1</sup> For details of the heads on the frieze cf. the excellent plates in W. Hege and G. Rodenwaldt, *Die Akropolis*, Berlin, 1930, and the photographs reproduced by W. Schuchhardt in *Jahrbuch*, XLV, 1930, pp. 247 ff., Abb. 29-89. Another pertinent parallel is the head of Perikles (A. Hekler, *Greek and Roman Portraits*, New York, 1912, pl. 4).

<sup>2</sup> *A.J.A.*, XXIX, 1925, pp. 117 ff.; *Hesperia*, II, 1933, pp. 1 ff. For criticisms of Carpenter's restoration cf., *inter alia*, E. Pfuhl, *Jahrbuch*, XLI, 1926, pp. 166 ff.; M. Wegner, *Ath. Mitt.*, LVII, 1932, pp. 92 ff.; Ch. Picard, *Manuel d'archéologie grecque: La sculpture*, II, Paris, 1939, p. 487.



is the smooth face and short hair that may safely be inferred from the present state both of our Giant and of the Hephaistos on the Puteal. But what shall we say of the front of the head, entirely broken away from the Puteal and preserved only in one problematical scrap in the series of our Giants? For help we must go to Rome.

Long ago Furtwängler demonstrated the ultimately Pheidian origin of the Horse Tamers or Dioscuri that now dominate the Piazza del Quirinale (Pl. 77),<sup>1</sup> and more recently Carpenter pointed out the striking similarity between the Horse Tamers and the Hephaistos of the Puteal.<sup>2</sup> The addition of our Giants as a third member in the series enormously strengthens the general argument in favor of the derivation of all three from a common source; the matter may be clinched by a consideration of two specific points. The height of the Horse Tamers is given as 5.51 m. and 5.56 m., i. e. twice the height of our best preserved Triton (No. 1: 2.76 m.) with which our Giants appear to have been uniform in scale. The author of the Horse Tamers, having presumably a larger building to decorate, decided to make his adaptation at twice the scale of the original. In the second place the well preserved heads of the Horse Tamers prove to be set at exactly the same angle as that demanded by the traces on the Puteal and by the broken neck of our best preserved Giant (No. 9); furthermore, they agree satisfactorily with our fragmentary head No. 10 in the treatment of the hair and in the modelling (Pl. 77a). The relatively small scale of the heads of the Horse Tamers has long been a matter for comment: it comes now as a welcome justification for the disparity in scale between the heads of our Giants and Tritons.

Our conclusion must be that the Giants, the Horse Tamers and the Hephaistos of the Puteal all derive from a common prototype. Since all three are in the style of the Parthenon pediments, since our Giants are associated with Tritons which are demonstrably derived from a figure of the west pediment and since the theme of the Puteal is identical with that of the east pediment, we are driven to the further conclusion that the prototype is to be found in the Parthenon pediments, where the only suitable candidate is the Hephaistos of the east gable.

Additional confirmation of a Parthenonian origin may be drawn from the horses of the Quirinale group. Comparison between them and the horses of Athena of the Parthenon west pediment as drawn by "Carrey" (Pls. 75a, 77b) will immediately

<sup>1</sup> *Masterpieces of Greek Sculpture*, London, 1895, pp. 95 ff.; *Denkmäler griechischer und römischer Skulptur* (Handausgabe), ed. 3, Munich, 1911, pp. 36 ff. Of the earlier literature on the Horse Tamers cf. especially F. Matz and F. von Duhn, *Antike Bildwerke in Rom*, I, Leipzig, 1881, pp. 260 ff., No. 959; C. Friederichs and P. Wolters, *Die Gipsabgüsse antiker Bildwerke*, Berlin, 1885, Nos. 1270 and 1271, pp. 453 ff.; A. Michaelis, *Röm. Mitt.*, XIII, 1898, pp. 248 ff.; S. Reinach, *Répertoire de la statuaire*, I, Paris, 1897, p. 485. For more recent discussion cf. A. della Seta, *Il Nudo nell' Arte*, I, Milan and Rome, 1930, pp. 180 ff. (with good illustrations in figs. 78 and 79); Picard, *La Sculpture*, II, p. 310; L. Curtius, *Das antike Rom*, Vienna, 1944, p. 57, Abb. 151-153; Vagn Poulsen, *Fidias*, Stockholm, 1949, pp. 92 f., fig. 63.

<sup>2</sup> *A.J.A.*, XXIX, 1925, p. 129.

make clear that the Horse Tamers, though themselves derived from the east gable, were provided with mounts from the west gable. The relation in scale between the horses and the Horse Tamers of Monte Cavallo proves that the animals, like the human figures, were doubled in size by the adapter.

The penetrating study of the Horse Tamers made by the Swedish sculptor Fogelberg in 1842 demonstrated that the two groups, mirror images with inconsequential variations of a common prototype, were used to adorn opposite sides of an entrance to some great building, presumably the Baths of Constantine beside the ruins of which they have stood for at least a thousand years.<sup>1</sup> Since each of the Tamers forms an angle of 90° with his horse, the human figure presumably stood against the outer face of the jamb while the horse, facing outward, stood parallel to the reveal of the doorway. The arrangement of the Horse Tamers, therefore, had much in common with that of our colossal figures, not least in their antithetical grouping. The two artists, faced with similar problems, both resorted to the Parthenon, though it is possible, in view of their relative dates, that the idea of the Horse Tamers was inspired by our figures.

Having established the connection of the colossal figures with the Parthenon pediments, we need look no further for the source of the olive tree and serpent on the pedestal. This was undoubtedly inspired by the serpent-entwined olive tree, the token of Athena, that formed the central motive of the west pediment and that is now represented by a couple of fragments in the Acropolis Museum and by the drawing on the Kertsch hydria (Pl. 76a). The Odeion master used the tree and serpent as a pendant to his principal figure in much the same way as a contemporary designer of sarcophagi might have represented on the end panels subordinate elements of the main design that he had worked out on the front.<sup>2</sup>

One would gladly know whether any specific symbolism motivated the design of our porch. That our Tritons should be derived from Poseidon is indeed logical inasmuch as Triton was accounted the son of Poseidon and Amphitrite. The Giants were the children of Ge and Ouranos, and hence had something in common with Hephaistos whose chthonic interests extended at least to volcanoes. It is conceivable, however, that our artist was of the school that made Prometheus rather than Hephaistos the midwife in the delivery of Athena; Prometheus was commonly numbered among the Titans and in later times the line of division between Titans and Giants became very faint.

Whether or not there exists any iconographical relationship between our Tritons

<sup>1</sup> *Annali dell' Istituto*, XIV, 1842, pp. 194 ff.

<sup>2</sup> In the Façade of the Colossal Figures at Corinth the fronts of the pedestals are decorated with small-scale scenes showing the decking of trophies and sorrowing prisoners, themes obviously related to the monumental representations of captives that stood on the pedestals. (Johnson, *Corinth*, IX, *Sculpture*, pp. 101-107; Stillwell, *Corinth*, I, ii, *Architecture*, pp. 72-76).



and Giants on the one hand and their prototypes in the Parthenon pediments on the other, the general theme of the new composition, as of the old, is obviously a strife between forces of the land and of the sea. Even here, however, the considerations of mythological symbolism were doubtless outweighed by the need of a framework for an effective design.

This is not the place to discuss in detail the mechanics of the adaptation. Attention may be drawn, however, to two other closely related instances. Among the many marble reliefs dredged out of Piraeus Harbor in 1930/31, Schrader recognized a series decorated with two-figure extracts from the Amazonomachy on the shield of Athena Parthenos.<sup>1</sup> These adaptations, like the Odeion figures, have been shown to be of the same scale as the originals; <sup>2</sup> the mouldings that enframe the panels are very close to those on the pedestals of our colossal figures; the quality of workmanship in the two cases is of the same order. A date in the middle or second half of the second century was long ago proposed by Karo for the Peiraeus reliefs.<sup>3</sup> It would seem clear that both the colossal figures and the reliefs are products of the same school, in the one case intended for a local need, in the other for the export trade.

The other relevant instance of adaptation from the Parthenon sculptures occurs on several series of Athenian coins. In one series Athena and Poseidon appear in evident opposition on either side of a snake-entwined olive tree: the design would seem certainly to have been inspired by the central group in the west pediment of the Parthenon. In a second series Zeus and Athena are again represented with olive tree and snake between, but here the divinities are engaged in quiet colloquy: scholars have, perhaps rightly, associated this design with the free-standing group of Athena, Poseidon and their respective tokens seen on the Acropolis by Pausanias (I, 24, 3). In a third series Athena alone stands quietly beside her olive tree, her snake below, her owl in the branches. Yet a fourth series shows Athena, armed, starting swiftly to the right away from her olive tree: this almost certainly echoes the east pediment.<sup>4</sup> A clue to the dating of these series is given by a coin of Marcus Aurelius showing the peaceful Athena and Poseidon<sup>5</sup> and by a medallion of Commodus that bears an Athena and olive tree of the pedimental type.<sup>6</sup>

<sup>1</sup> *Arch. Anz.*, 1931, cols. 224-227, figs. 8-10 (Karo), cols. 387-393 (Schrader); *Corolla Ludwig Curtius*, Stuttgart, 1937, pp. 81-88, pls. 17-21 (Schrader); *Jahrbuch*, LV, 1940, pp. 198-200 (Schweitzer); *B.C.H.*, LXVIII-LXIX, 1944-45, pp. 163 ff. (Ras).

<sup>2</sup> *Arch. Anz.*, 1931, col. 392.

<sup>3</sup> *Arch. Anz.*, 1931, col. 224.

<sup>4</sup> *British Museum Catalogue of the Greek Coins, Attica-Megaris-Aegina*, London, 1888, pp. 93 ff., pls. XVI f.; Imhoof-Blumer and Gardner, *A Numismatic Commentary on Pausanias*, pl. Z, pp. 129-131; J. N. Svoronos, *Trésor des monnaies d'Athènes*, Munich, 1923-26, pls. 84, 85, 87, 89; Harrison, *Mythology and Monuments of Ancient Athens*, pp. 422, 442; Frazer, *Pausanias*, vol. II, pp. 300 f., 310; J. P. Shear, *Hesperia*, V, 1936, p. 296, fig. 8.

<sup>5</sup> Imhoof-Blumer and Gardner, *op. cit.*, pl. Z, XV.

<sup>6</sup> *Ibid.*, pl. Z, XIII. Mrs. Shear has proposed a date in the Augustan period for the earliest coins showing Athena and Poseidon in opposition (*Hesperia*, V, 1936, p. 296).

It is clear that in the Antonine period a very lively interest was revived in the sculptures of the Parthenon (as in many other of the famous works of the fifth century). The adaptation of the pedimental figures in the Odeion may have been in part the cause and in part the result of this contemporary interest.<sup>1</sup>

### *Seated Statues*

Probable candidates for the positions on the long bases that rose between the marble stairways along the north façade are to be found in a series of three seated figures in Pentelic marble of which two are fairly complete, the third fragmentary. The better preserved pieces were found in late Roman levels at the edge of the Panathenaic Way, one (S 930) some 16 m. to the east of the mid part of the Odeion, the other (S 826) 46 m. to the east of the southeast corner of the building. In neither case was there any adequate base for the statue at the place of finding, and both must have been brought from elsewhere in late Roman times. A clue to their association with the Odeion is given by the third piece (S 1304), a mere fragment, which turned up just to the north of the mid part of the north façade of the Odeion. The design of the figures indicates that they were to be viewed primarily from the front and sides, little from the rear; hence they were well suited to our pedestals.

#### SEATED FIGURES FROM THE NORTH FRONT

1. Seated, draped, male Figure (S 930). Pl. 79a and b.

Height, 1.24 m.; width, 0.58 m.; length, 0.655 m. The head was inset and is now missing. The left hand, clenched, rested on the thigh; the right forearm (cut in a separate piece and now missing) was thrust forward. The left foot was drawn back, the right set well forward. The sides of the throne terminated toward the front in grotesque figures: body, legs and wings of an eagle, a feline head and ram's horns. Two dowel holes indicate that the back of the chair was cut in a separate piece and pinned in place. The back of the lower part of the chair is but roughly finished. The weathered surface indicates long exposure.

Very close parallels for the handling of the drapery and for the quality of the work are to be found among the statues from the Exedra of Herodes Atticus in Olympia.<sup>2</sup>

2. Seated, draped, male Figure (S 826). Pl. 78.

Height, 1.242 m.; width, 0.66 m.; length, 0.712 m. There remains only the middle part of a heavily cloaked figure seated in an armchair. The left arm, wrapped in the cloak, was drawn across the front of the body; the forearm was cut in a separate piece, now missing. The right upper arm lay close against the body and the breakage suggests that the elbow rested toward its middle. From the breakage again one may infer that the right foot was thrust forward, the left drawn in and under. The

<sup>1</sup> The mechanical precision of the copying suggests that the sculptors of our colossal figures had at their disposal casts of the pedimental figures. In the *Jupiter Tragoedus* of Lucian (33), written about the time of the rebuilding of the Odeion, it is observed that the famous old bronze statue of Hermes Agoraios was covered with pitch from being cast every day by the sculptors.

<sup>2</sup> G. Treu, *Olympia, Ergebnisse*, III: *Die Bildwerke*, Berlin, 1897, pl. LXVI; *Die Antike*, X, 1934, p. 111, figs. 14 and 15.



throne was carved in one piece with the figure; its sides began in front in feline heads with long twisted horns and swept up to a curved back; there is a scar of a protuberance near the middle of the top of the side wall. The drapery is handled in a vigorous style and the carving is competent. The surface is quite heavily weathered, enough to prove that the statue stood outdoors.

In pose, drapery and chair this statue conforms closely to the type of a statue of Epicurus, the fame of which is attested by the existence of at least four other copies.<sup>1</sup> Our

figure may accordingly be restored with the right elbow resting on the left wrist and with the right hand supporting the chin.

### 3. Fragment of a Marble Chair (S 1304). Pl. 79c.

Maximum dimension, 0.35 m.

The fragment comes from the proper left side of a throne decorated with a monstrous form: a winged body probably terminating above in a lion's head and below in a lion's leg. Comparable both in conception and workmanship with Nos. 1 and 2.<sup>2</sup>

### *History of the Second Period*

We must now consider the evidence for dating the various alterations in the fabric of the building that have already been described. It will be convenient to start with the roof tiles since they give the most specific indication.

The history of the roofing may be worked out from the tile stamps as recorded above (Pl. 38; Fig. 7). The Aigipyros series of tiles is clearly distinguished from the more numerous Dionysios series both by its clay and its letter forms. The lettering is thoroughly characteristic of the Augustan period.<sup>3</sup> It may be noted also that the antefixes bearing the name Aigipyros and found elsewhere in the Agora are decorated in a classicistic style comparable with the marble antefixes of the Market of Caesar and Augustus. Since the thirteen examples of the Aigipyros stamp found in the Odeion undoubtedly represent only a small proportion of the original total, it is a fair inference that they are remnants from the original roofing, either re-used or perhaps never disturbed over some part of the southeast corner of the building. In the absence of any indication to the contrary we may assume that Aigipyros was the fabricant.

The Medeios series is probably closely contemporary with that of Aigipyros, its letter forms representing the classicistic tendency of the Augustan period as contrasted with the popular flavor of Aigipyros' stamp.<sup>4</sup> Medeios, too, may best be

<sup>1</sup> A. Hekler, *Bildnisse berühmter Griechen*, Berlin, 1939, pp. 48, 57; K. Schefold, *Die Bildnisse der antiken Dichter, Redner und Kenner*, Basel, 1943, p. 120, no. 1 and p. 210.

<sup>2</sup> On the type of chair decorated with animal forms cf. G. M. A. Richter, *Ancient Furniture*, Oxford, 1926, pp. 10 f., 119 f.

<sup>3</sup> Significant are the alpha with broken bar, the small-bowed rho, the pi with one hasta slightly shorter than the other, the small omicron, the tall-stemmed epsilon. As a typical parallel cf. P. Graindor, *Album d'inscriptions attiques d'époque impériale*, Gand, 1924, No. 2 ( $\pm$  38/37–18/7 B.C.).

<sup>4</sup> A good parallel for this more formal script is the dedicatory inscription of the Temple of Rome and Augustus on the Acropolis, to be dated between 27 and 18/7 B.C. Graindor, *Album*, No. 4.

regarded as a tile-maker. Whether he shared the contract for the original roofing with Aigipyros, or whether his two surviving pieces are chance intruders would be difficult to decide.

The Mother of the Gods series, as noted above, is undoubtedly to be associated with the Metroon. Its letter forms are distinctly earlier than those of the Aigipyros and Medeios series; they find their parallels rather in the stamped tiles from the Arsenals of Pergamon that date from the period of the kings prior to 133 B.C.,<sup>1</sup> and in the Hellenistic tiles from Sparta.<sup>2</sup> How a few of them chanced to be employed in the roofing of the Odeion, whether in the original construction or in a subsequent repair, may be due to some adventitious circumstance which we can scarcely hope to control.<sup>3</sup>

The lettering of the Dionysios and Diodoros series is best, and indeed very closely paralleled in the middle of the second century after Christ.<sup>4</sup> The initial ligature in both cases is undoubtedly to be restored as ἀρχοντος, and in the case of the Dionysios stamp the final iota in all probability denotes the tenth prytany of the year.<sup>5</sup> The dating of roof tiles by an eponym was, of course, a common practice in both Greek and Roman lands;<sup>6</sup> the insistence on still more precise dating is paralleled, *inter alia*, on Athenian tetradrachms of the New Style and on the stamps of Rhodian amphora handles. In all these cases, presumably, the precision was intended to facilitate official control.

The archon Dionysios has been assigned to one of the years A.D. 148-150.<sup>7</sup> In view of the very large number of tiles that bear his name, we may be sure that the Odeion was in large part re-roofed within that period. The archon Diodoros cannot be placed with such precision. He may well, however, belong in one of several gaps

<sup>1</sup> A. von Szalay and E. Boehringer, *Altertümer von Pergamon*, X, *Die hellenistische Arsenale*, Berlin and Leipzig, 1937, pp. 39 ff.

<sup>2</sup> A. J. B. Wace, *B.S.A.*, XII, 1905-06, pp. 344-350; XIII, 1906-07, pp. 17-43.

<sup>3</sup> A pertinent parallel might be adduced from Sparta where two tiles stamped as for the city walls have turned up in the Amyklaion (Wace, *B.S.A.*, XIII, 1906-07, pp. 21 f., No. 29).

<sup>4</sup> For the Dionysios series cf. Graindor, *Album*, No. 59 (A.D. 148/9), No. 63 (A.D. 153/4) and No. 64 (A.D. 153/4). For the general flavor of the Diodoros stamp and particularly for its characteristic omega cf. Graindor, *op. cit.*, No. 59 (A.D. 148/9).

<sup>5</sup> I find no direct parallel for the use of these ligatures for ἀρχοντος. The occurrence of the two initial letters of γραμματεὺς and γυμνασίαρχος in ligature is frequent, however, in the middle of the second century, a period notorious for its epigraphic compendia. Cf. W. Larfeld, *Handbuch der attischen Inschriften*, Leipzig, 1902, p. 534. For the designation of the prytany by letter, *ibid.*, pp. 548 f.

<sup>6</sup> For the Greek material see especially Wace's studies of the rich collection of stamped tiles from Sparta in *B.S.A.*, XII, 1905-06, pp. 344-350; XIII, 1906-07, pp. 17-43 with references to the earlier literature on p. 43.

<sup>7</sup> Kirchner, *I.G.*, II-III<sup>2</sup>, *pars altera, fasc. posterior*, 1931, p. 794 (with testimonia); Oliver, *Hesperia*, XI, 1942, p. 87.



in the archon list of the mid-second century as now known.<sup>1</sup> The isolated tile bearing his name may therefore be assigned either to the extensive program of the very middle of the century or to some minor repair of a slightly later date.

The design of the antefixes raises a special problem. Despite minor variations among the surviving examples, it is clear that they all, both the marble and the terracotta, are based on one design. The terracotta antefixes that have been found so closely resemble the Dionysios tiles in clay and technique that they may be supposed to derive from the second period. The carving of some at any rate of the marble antefixes exhibits the same smooth competent quality that marks all the marble carving of the original building. We may safely assume, therefore, that the design of the antefixes as set in the first period was closely copied in the second.

The decorative scheme of our antefixes differs radically, however, from that commonly current in Athens in the latter part of the first century B.C. as represented by the marble antefixes of the Market of Caesar and Augustus and by terracotta antefixes found in the Agora Excavations in contexts of the same period: these are based on a revival of the florid style of the 5-4th centuries with elaborately spiralled acanthus tendrils surmounted by an open palmette of the classical type. The architect of the Odeion, in diverging from the contemporary practice, was perhaps influenced by a desire to assimilate his antefixes on the one hand to the antefixes of the adjacent building, viz. the Middle Stoa, on the other hand to the capitals of the Odeion which were presumably being carved or already finished when the roofing was begun. Comparison with the antefix from the Middle Stoa (A 211; Pl. 37c) will show that it inspired the general scheme of the Odeion antefix and the form of its palmette. The acanthus of the Odeion antefixes, however, in particular the placing of the middle leaf behind the lateral leaves and the manner of serration, is clearly patterned on the capitals of the great Odeion pilasters (Pl. 30).

We must return to the problem of dating the alterations that marked the second period of our building, and we may consider next the transformation of the scaena into a porch. The record of a major adjustment in this part of the Odeion can be read from the stratification in the area to the north. Close above the original ground level of the Odeion the excavators encountered a layer of gravel interspersed with many fragments of stucco identical in quality with that still in place on the walls of the building (cf. p. 41 above). This layer yielded also the fragment of a marble antefix already considered (p. 53), which would seem to derive from the original con-

<sup>1</sup> Gaps exist for the years 144/5; 148/9 and 149/50 (one to be filled by Dionysios); 151/2; 152/3; 153/4; one between 156/7 and 157/8; 164/5. Cf. Oliver, *op. cit.*, pp. 82 ff. and J. Notopoulos, *Hesperia*, XVIII, 1949, pp. 1-57. From elsewhere in the Agora come two other fragmentary pan tiles stamped ΑΛΕ [.. in lettering characteristic of the mid second century (A 451 and A 1058; Pl. 38e). Possible identifications are with the Memmius archon in 127/8 and with the Memmius of 161/2; the letter forms favor the later date.

struction and which was presumably damaged in the collapse of the building at the end of the first period. The gravelly layer containing this debris filled the lower parts of several large shallow pits for the slaking of lime intended no doubt for the wall plaster required in the restoration of the building. The top of the gravelly layer was brought to a smooth firm surface which was carried up to the face of the lowest of the newly laid marble steps in the north façade of the building. Pottery, lamps and blown glass from the gravelly layer date from the first and the early part of the second century after Christ, thus providing a *terminus post quem* for the alterations.

Some assistance in dating may be derived from the architectural details of the porch of the colossal figures. The piers behind the figures resemble in the panelled treatment of their faces the pilasters of the Monument of Philopappos (A.D. 114-116).<sup>1</sup> But a closer, indeed a precise, parallel for our free-standing piers square in plan and with panelled faces is provided by the Arch of Hadrian in Athens (Pl. 80a).<sup>2</sup> The exact date of the arch is not known, but it is to be placed either late in the reign of Hadrian after the project for the new suburb, "the city of Hadrian" as it is called on the arch, was at least well advanced, or perhaps more likely, in view of Hadrian's aversion to having his name appear on his buildings, to the beginning of his successor's regime.<sup>3</sup>

The type of composite capital associated with our square piers does not occur on the Monument of Philopappos nor on the surviving parts of the Library of Hadrian. We have, however, observed its use on the Arch of Hadrian (above, p. 115). The type was employed in several variant forms in the Exedra of Herodes Atticus at Olympia (dating from the 50's of the second century),<sup>4</sup> and in the Odeion of Herodes in Athens (dedicated to the memory of Regilla d. ca. A.D. 160).<sup>5</sup> In one characteristic detail, viz. the feathered edge of the principal tendril, our capital differs from those of the Arch of Hadrian and resembles those from the Exedra at Olympia.

The elaborate base mouldings on the pedestals of our colossal figures are closely paralleled on the scaenae frons and the stage front of the Odeion of Herodes.<sup>6</sup> The distinctive tooling on these mouldings, as noted above, is identical with that on the Arch of Hadrian.

<sup>1</sup> Stuart and Revett, *The Antiquities of Athens*, III, ch. V, pls. I ff.

<sup>2</sup> *Ibid.*, ch. III, pls. I ff.

<sup>3</sup> On the date of the arch cf. Judeich, *Topographie von Athen*<sup>2</sup>, pp. 123, 381; P. Graindor, *Athènes sous Hadrien*, Cairo, 1934, pp. 228 f. Two replicas of the arch were erected before the Great Propylaia at Eleusis in the reign of Antoninus Pius (K. Kourouniotes and O. Broneer, *Eleusis*, Athens, 1936, pp. 38 ff.).

<sup>4</sup> *Olympia, Ergebnisse*, II: *Die Baudenkmäler*, Berlin, 1892, pl. LXXXVI. On the date cf. P. Graindor, *Hérode Atticus et sa famille*, Cairo, 1930, pp. 87 f.

<sup>5</sup> 'Αρχ. 'Εφ., 1912, p. 164, fig. 3.

<sup>6</sup> Tuckermann, *Das Odeum des Herodes Atticus und der Regilla*, p. 7, pl. IV; 'Αρχ. 'Εφ., 1912, pl. 10.



As for the colossal figures themselves, a date in the early Antonine period is indicated by the nature of the drill work in the hair (slightly more advanced than on the latest portraits of Hadrian<sup>1</sup> but less free than in later Antonine work), and by a suggestion of the brooding vacuous expression that was in evidence already in the portraiture of Antinous (d. A.D. 130) and that was to mark so much of the sculpture of the Antonine period.<sup>2</sup>

Close comparison with the sarcophagi would undoubtedly confirm the early Antonine dating of the colossal figures. For a single parallel one might quote the magnificent Gigantomachy Sarcophagus in the Galleria delle Statue of the Vatican.<sup>3</sup> In technical aspects (height of relief, drillwork, surface finish) the sarcophagus is close to our figures. More significant is the resemblance in composition. The front of the sarcophagus is dominated by six great battling figures, each with one arm up and one down, alternately bearded and smooth-faced, arranged in cleverly interlocking pairs; the panels on the ends of the sarcophagus form pendants to the main composition in much the same way as the reliefs on our pedestals are related to the figures above. The sarcophagus is reported by Robert to be of Greek marble and it is tempting to regard it, like many other of the monumental sarcophagi of the period, as a product of the same milieu as the Odeion figures.

In the field of architectural sculpture one of the closest parallels is to be found in the figures of the Provinces from the Hadrianeum in Rome, dedicated by Antoninus Pius in A.D. 145.<sup>4</sup> Similarity is to be noted in the technical treatment of the heads, in the height of the relief, in the marked isolation of the figures and in the combination of principal figures (personifications of the provinces) with pendants (trophies). The Façade of the Colossal Figures in Corinth, shown by its bolder drilling, more open mouths and smoother surfaces to be slightly later than the Athenian work, has been dated about the middle of the second century.<sup>5</sup> Later monuments of the same general order are the so-called Incantada from Thessalonika, now in the

<sup>1</sup> Hekler, *Greek and Roman Portraits*, p. xxxvii, pl. 258a (from the Olympieion in Athens).

<sup>2</sup> van Essen had argued for a date in the time of Antoninus Pius (*B.C.H.*, L, 1926, pp. 199 f.); Becatti placed the heads between the Antonine and Severan periods (*Rivista del r. Istituto d'Archeologia e Storia dell'Arte*, VII, 1940, p. 92). From the same school must come the heads of Athenian kosmetai discussed by Graindor in *B.C.H.*, XXXIX, 1915, p. 311, No. 6 (Fig. 13) and p. 313, No. 7 (Pl. XVII). Graindor proposed a date within the reign of Hadrian, but, in the absence of compelling external evidence, an early Antonine date would seem equally possible.

<sup>3</sup> C. Robert, *Die antiken Sarkophag-reliefs*, III, Berlin, 1897, pp. 113-114, Pl. XXVI; W. Amelung, *Die Sculpturen des Vaticanischen Museums*, II, Berlin, 1908, pp. 643 ff., No. 414a, Pl. 53; J. M. C. Toynbee, *The Hadrianic School*, Cambridge, 1934, pp. 193 ff., Pl. XL, 2.

<sup>4</sup> Platner and Ashby, *Topographical Dictionary of Ancient Rome*, p. 250; Toynbee, *The Hadrianic School*, pp. 152-159.

<sup>5</sup> R. Carpenter, *Guide to the Excavations of Ancient Corinth*, Athens, 1928, pp. 67-70; ed. 4, 1947, pp. 39 f.; Johnson, *Corinth*, IX, *Sculpture*, pp. 101-107; Stillwell, *Corinth*, I, ii, *Architecture*, pp. 55-88.

Louvre<sup>1</sup> and Les Tutelles, that stood in Bordeaux until its demolition in 1677.<sup>2</sup> Both these structures included architectural screens in which a row of piers was decorated with figures in high relief; in the Incantada the piers supported a straight architrave, in Les Tutelles a series of arches.<sup>3</sup>

The seated statues from the façade of the Odeion are other and no less characteristic products of the same school as the colossal figures that towered above them. For their style comparison has already been made with the sculpture from the Exedra of Herodes Atticus at Olympia to be dated in the 50's of the second century. For the placing of such seated figures against tall piers a satisfactory parallel is at hand in the arched entrance to an estate of Herodes Atticus at Marathon (Pl. 80b).<sup>4</sup> Fragmentary seated statues, one male and one female, the throne of one decorated in the manner of ours, have been restored by Le Bas' artist to either side of the "Gateway of Eternal Harmony."

The chronological evidence may be summed up thus: the Odeion was re-roofed, as shown by its tile stamps, in the very middle of the second century after Christ; this re-roofing may with great probability be supposed to have followed on the collapse of the original roof that is attested by damage to floors, benches, statue bases, etc.; with the re-roofing may logically be associated the reduction in the size of the auditorium since this would have facilitated the re-roofing; the stratification to the north of the building indicates that extensive adjustments were carried out in the building at some time toward the middle of the second century after Christ; the style both of architectural detail and of sculpture points to a date in the middle of the second century after Christ for the insertion of the colossal standing figures and seated statues in the north façade; their insertion implies the previous demolition of the original small north porch and the conversion of the scaena into an open colonnade. In view of this concatenation of evidence we have felt justified in assuming that all

<sup>1</sup> Stuart and Revett, *The Antiquities of Athens*, III, ch. IX, pl. II; Ch. van Essen, *B.C.H.*, L, 1926, pp. 203 ff.; P. Perdrizet, *Monuments Piot*, XXXI, 1930, pp. 51-90.

<sup>2</sup> van Essen, *op. cit.*, pp. 205 ff.; Perdrizet, *op. cit.*, pp. 84 ff.

<sup>3</sup> Probably contemporary with our figures is the colossal Satyr-Atlas and perhaps other of the large-scale statues found in the Theatre of Dionysos (R. Herbig, *Das Dionysos-Theater in Athen*, II, *Die Skulpturen vom Bühnenhaus*, Stuttgart, 1935, pp. 34 ff.). In the same vein are the pair of Pans from the Theatre of Pompey in Rome (H. S. Jones, *A Catalogue of the Ancient Sculptures . . . of Rome: The Museo Capitolino*, Oxford, 1912, Cortile 5 and 23, pp. 22 and 25, pl. 2; Bieber, *History of the Greek and Roman Theater*, p. 333, fig. 437). To be compared also is the series of "Caryatids" from the Via Appia which are probably to be associated with a memorial to Regilla built by Herodes Atticus; two replicas of this series have been found in Athens near the Metropolis (H. Bulle, *Röm. Mitt.*, IX, 1894, pp. 134-161; Graindor, *Hérode Atticus*, pp. 214 ff.; A. Neugebauer, *Die Antike*, X, 1934, pp. 112 ff.).

<sup>4</sup> Philippe Le Bas and S. Reinach, *Voyage archéologique en Grèce et en Asie Mineure*, Paris, 1888, pp. 90 f., pl. 90. For the bibliography cf. Graindor, *Hérode Atticus*, p. 185, note 1. Cf. also Neugebauer, *Die Antike*, X, 1934, p. 96, fig. 3.



these alterations formed part of one program of rehabilitation that was occasioned by the accidental collapse of the original roof and that introduced the second period of the building.

It is perhaps worth noting that to this same period has been attributed an alteration in the scaena of the Theatre of Dionysos of much the same import as that which occurred in our building. There is reason to believe that the scaena in the theatre was now made readily accessible through arched openings in its ends while the removal of its interior supports and the erection of statuary within the chamber suggest that the room was no longer reserved for the actors but was open to the public.<sup>1</sup> In the theatres of North Africa built in the Antonine and Severan periods (Timgad, Djemila, Dugga and Sabratha) such an arrangement is an organic part of the original design; the doors in the scaenae frons lead not into a closed room but into an open colonnade, and the dressing rooms, etc. are contained in deep paraskenia at the ends of the stage.<sup>2</sup> Our porch, regarded as a vestibule to the building behind it, may be paralleled in contemporary buildings of other types, e. g. the propylon to the court of the great temple at Baalbek<sup>3</sup> and Bath C at Antioch.<sup>4</sup> In both these buildings a long columnar porch approached by steps is flanked on either side as in the Odeion by a tower-like element with solid front wall.

In what state did Pausanias find our building? He referred to it first (I, 8, 6) as "the theatre which they call the Odeion," and later (I, 14, 1) simply as "the Odeion at Athens." In the second passage, moreover, he observed that "on entering the Odeion one finds other statues and in particular a statue of Dionysos worth seeing."<sup>5</sup> We have noted above (pp. 79 f.) fragments of a colossal statue that may with probability be regarded as parts of this figure. Pausanias, therefore, would seem to have found the building still a normal odeion with this great statue still within it. The probability is that his visit to Athens falls between A.D. 143 and the early 60's.<sup>6</sup> This argument, which accords well with the other evidence, would appear to fix the time of the collapse and rehabilitation late in the period between A.D. 143 and 150, the *terminus ante quem* given by the stamped roof tiles.

The reduction in the seating capacity of the building, combined with the trans-

<sup>1</sup> Bulle, *Untersuchungen an griechischen Theatern*, p. 19; E. Fiechter, *Das Dionysos-Theater in Athen*, III: *Einzelheiten und Baugeschichte*, Stuttgart, 1936, pp. 36 f.

<sup>2</sup> The material is conveniently assembled by Bieber, *The History of the Greek and Roman Theatre*, pp. 358 ff.

<sup>3</sup> T. Wiegand, *Baalbek*, I, Berlin and Leipzig, 1921, pls. 14, 41; D. S. Robertson, *Greek and Roman Architecture*<sup>2</sup>, Cambridge, 1943, figs. 95, 97.

<sup>4</sup> G. Elderkin, *Antioch-on-the-Orontes*, I, Princeton, 1934, pp. 19 ff., pl. V (Fisher); C. R. Morey, *The Mosaics of Antioch*, New York, 1938, p. 11, restored plan p. 12; D. Levi, *Antioch Mosaic Pavements*, Princeton, 1947, pp. 289 ff., fig. 118.

<sup>5</sup> Ἐς δὲ τὸ Ἀθήνησιν ἐσελθοῦσιν Ὀιδεῖον ἄλλα τε καὶ Διόνυσος κείται θεὸς ἄξιος.

<sup>6</sup> On the dating cf. Frazer, *Pausanias*, I, pp. xvi f.; Judeich, *Topographie von Athen*<sup>2</sup>, p. 13.

formation of the scaena into a portico open to the public, unfitted the building for its original function as a concert hall. In this connection it is significant that our next literary source, Philostratos, does not refer to it as an odeion but in one instance as "the theatre in the Kerameikos which is called the Agrippeion" (II, 5, 4), elsewhere simply as "the Agrippeion" (II, 8, 4). He mentions it as the locale of two famous rhetorical displays, one given by Alexander of Seleucia while on his way to assume the "Imperial Secretaryship for the Greeks" in connection with the Pannonian Wars and at the bidding of Marcus Aurelius probably between A.D. 173 and 175;<sup>1</sup> the other by Philagros of Cilicia at a time when Herodes Atticus was still active, i. e. before ca. A.D. 180.<sup>2</sup>

It would appear, therefore, that after its remodelling the Odeion no longer served as a concert hall but rather as a lecture hall for the use of the sophists, i. e. for university purposes.

The new colonnade now available in the north part of the building would have provided the sort of strolling place in which Athenian teachers had long been accustomed to converse with their students whether in the older colonnades around the market square (Stoa Poikile, Stoa of Zeus) or in the great gymnasia. Sheltered from the sun yet open to the breeze, the north porch would have been ideal for this purpose, especially in summer.

We have no evidence, unfortunately, as to how the part of the building to the south of the auditorium was treated in the remodelling. This area may well have been divided into small classrooms for the use of individual teachers, while the auditorium proper would have accommodated the larger crowds that flocked to the public recitations either of local or of visiting sophists.<sup>3</sup>

The seated figures which we have found reason to place on the long pedestals between the stairways of the north façade would be thoroughly appropriate to the use of the building for academic purposes. One of the sitters, as we have seen, is of the type of Epicurus and may, indeed, have represented Epicurus himself. The second, though no specific identification has been established, also conforms to the type of the seated philosopher which remained constant in essential features throughout antiquity. The eight bases call for eight statues. If, as would seem probable, all were philosophers, one is tempted to restore two representatives of each of the great Schools: the Stoic, Academic, Peripatetic and Epicurean.<sup>4</sup>

<sup>1</sup> For the date cf. Graindor, *Hérode Atticus*, p. 139, note 2.

<sup>2</sup> Philostratos, *Vitae Sophistarum*, II, 5, 4; II, 8, 4.

<sup>3</sup> On the question of rooms see J. W. H. Walden, *The Universities of Ancient Greece*, New York, 1909, pp. 266-269.

<sup>4</sup> Professor A. M. Friend has shown that the seated portraits of the Evangelists in the Gospel books of the Macedonian Renaissance of the 10th and 11th centuries may be traced back to proto-types among the sculptured portraits of ancient philosophers and men of letters. (*Art Studies*,



The history of our building as thus interpreted accords well with what was already known from literary sources as to the development of higher education in the second century. Hadrian, in addition to his deep interest in Greek culture, had concerned himself in various practical ways with arrangements for higher education in Athens, as also in Alexandria and Rome. It was Antoninus Pius, however, who co-ordinated and systematized the existing regulations for the whole Empire, prescribing the number of professors in the various subjects according to the size and importance of the cities, fixing also their privileges and their salaries. Marcus Aurelius added to the establishment a new chair of sophistic or rhetoric, and two chairs, with state salaries, for each of the great philosophical schools, i. e. the Stoic, Academic, Peripatetic and Epicurean. With such encouragement and facilities Athens recovered her old rank among the very first intellectual centres of the world and, incidentally, built up in her academic reputation her most fruitful source of revenue.<sup>1</sup>

For our present purpose it is to be remembered that in the Antonine period the most distinguished sophist in Athens was Herodes Atticus, so much so that Marcus Aurelius, an old pupil of Herodes, when announcing his arrangement for academic chairs in Athens specified that the candidate for the newly created chair of rhetoric should be selected by the Emperor, but that the chairs for the four philosophic schools should be filled at the discretion of Herodes.<sup>2</sup> We may be sure, therefore, that Herodes was very much concerned about the provision of adequate physical facilities for the use of these teachers. It will not have been by mere coincidence that the splendid new concert hall on the south slope of the Acropolis which was very evidently designed to assume the original function of the Odeion in the Agora was built by Herodes himself in memory of his wife Regilla who died in or about A.D. 160, i. e. within ten years of the remodelling of our building.<sup>3</sup>

1927, pp. 115-147). The series of seated portraits, he has argued, was taken over from the pagan by the Christian illuminators in the late second or early third century after Christ in one of the great book-producing centres of the Greek world, most likely Ephesos. There can be no mistaking the derivation of St. Matthew from the Epicurus type represented in our series. A striking though not equally cogent parallelism may be noted between St. Mark and our first seated figure. In view of these correspondences, the congruity of dates, and the great prominence of our statues, Athens might venture to rival Ephesos for the claim to being the place of transfer. In some of the gospel pictures architectural backgrounds drawn from the theatre and the market place are prominent; in this respect also the case of Athens might be sustained.

<sup>1</sup> On the development of higher education in Athens in the second century see especially Wachsmuth, *Stadt Athen*, I, pp. 686-703; Walden, *The Universities of Ancient Greece*, pp. 83-96; Oliver, *Hesperia*, III, 1934, pp. 191-196.

<sup>2</sup> Philostratos, *Vitae Sophistarum*, II, 2.

<sup>3</sup> It is conceivable that Herodes financed the reconstruction of our Odeion, although there is no specific evidence to this effect in our sources. On the other hand an obscure passage in Aristeides' *Panathenaikos* might be construed to indicate the activity of the Emperor (p. 289 Dindorf: ἡ τε νῦν ἀρχὴ γῆς τε καὶ θαλάττης, εἷη δὲ ἀθάνατος, οὐκ ἀναίεται τὰς Ἀθήνας μὴ οὐκ ἐν διδασκάλων καὶ τροφῶν μέρει

## LATER HISTORY OF THE AREA

In its remodelled form the Odeion was to continue in use for little more than a century. As noted above, the end came with fire. The coins that were sealed under by the falling debris of the building run down into the reign of Gallienus (A.D. 253-268) and there break off abruptly. We may be sure, therefore, that the catastrophe occurred when the Herulians sacked this part of Athens in A.D. 267.<sup>1</sup>

Most of the stonework of the building was removed soon after the fire to be incorporated in the new fortifications, the so-called "Valerian Wall" that was thrown around the Acropolis and a comparatively small area to the north.<sup>2</sup> Fragments of the Odeion's columns, its capitals, cornice and a piece of a marble roof tile have been recovered from a tower of that wall immediately to the south of the Stoa of Attalos, while numerous other fragments, among which are represented the round capitals, the capitals from above the colossal figures, the walls of the basement of the gallery, the cornice of the main order, marble roof tiles and a herm from the stage front, have come to light in the Stoa of Attalos whither they were carried, no doubt, by the builders of the "Valerian Wall."<sup>3</sup> All the roof tiles of the building that came to the ground intact were also carefully salvaged from the ruins. For somewhat over a century the skeleton of the building continued to be used sporadically as a quarry, the quarrymen leaving behind them heaps of marble chips from the breaking up of the great blocks and the sculpture. At the same time the area was used as a dumping ground; although no house walls of the period have been recognized, great quantities of broken pottery of the later third and fourth centuries were discovered in the pillaged foundation trenches and a deep layer of cattle bones covered much of the southeast part of the area.

At some time in the neighborhood of A. D. 400, when the Athenians had again ventured out beyond the narrow confines of the "Valerian Wall," the entire area of the Odeion and much ground besides was overlaid by an enormous building complex (Fig. 21). The overall limits of this structure have not yet been fixed nor has it yet received even a preliminary study. This much, however, may be derived from the ground plan of the actual state. The establishment comprised a great rectangular

κοσμεῖν ἀλλὰ τοσαύτη τῶν τιμῶν ἐστὶ ἡ περιουσία ὥστε τοσούτον ἐτέρως ἢ πόλις πράττει τὰ νῦν ὅσον οὐ πραγματεύεται).

<sup>1</sup> Zosimus, I, 39; Synkellos, p. 382 D; Wachsmuth, *Stadt Athen*, I, pp. 706 ff.; *Hesperia*, VI, 1937, p. 76; XVII, 1948, pp. 169 f., 192; Supplement IV: *The Tholos*, 1940, p. 136.

<sup>2</sup> For the date cf. Shear, *Hesperia*, VII, 1938, p. 332.

<sup>3</sup> Other buildings of the Agora are represented in the "Valerian Wall": Stoa of Zeus (*Hesperia*, VI, 1937, p. 23: cornice); Temple of Zeus and Athena Phratrios (*ibid.*, p. 106: altar); Metroon (*ibid.*, p. 185; epistyle); Temple of Ares (*Hesperia*, IX, 1940, pp. 39 ff.: ceiling members); Middle Stoa (many column drums, architrave blocks, etc.); Library of Pantainos (*Hesperia*, IX, 1940, pp. 294 f.: foundation and many members of the superstructure).



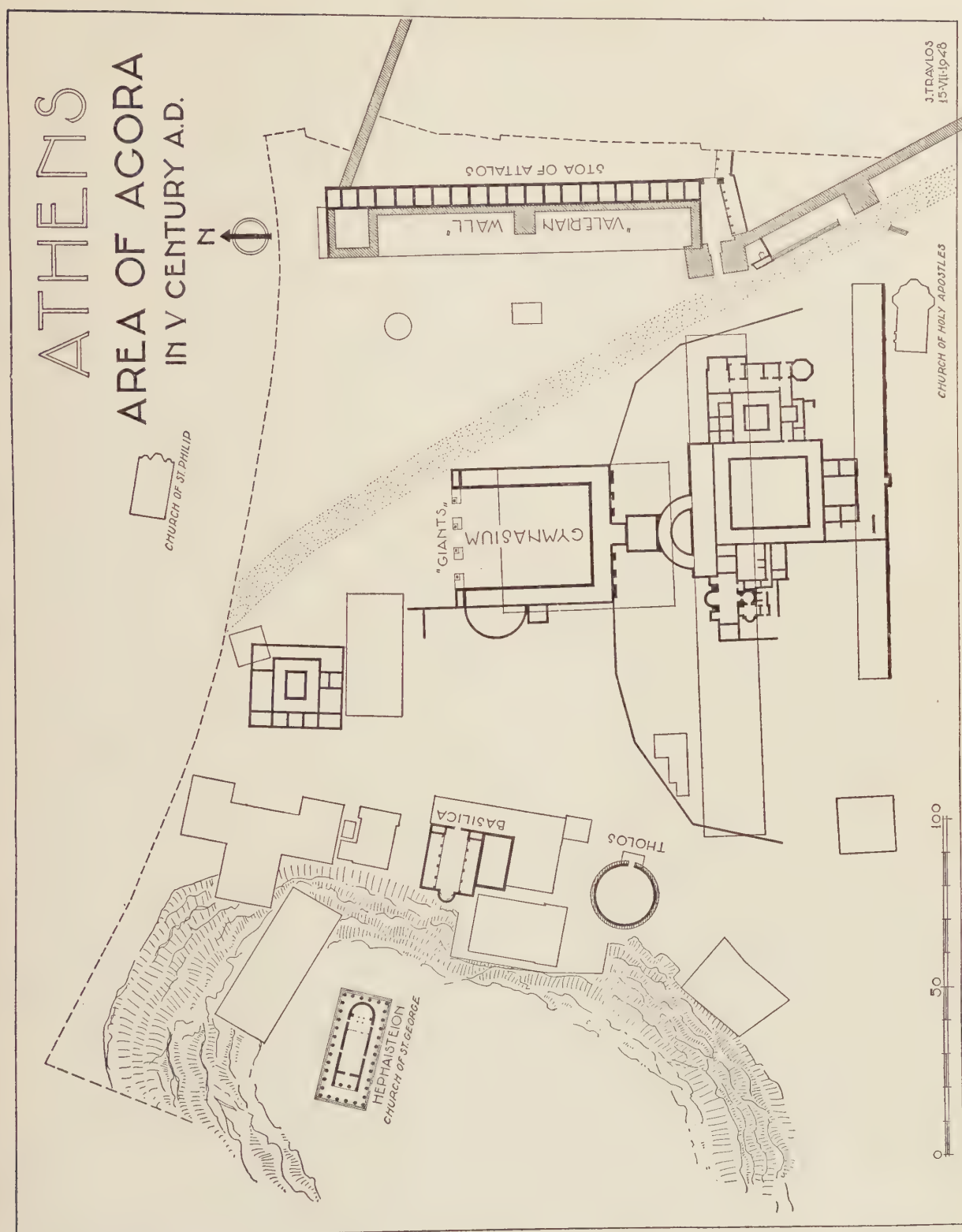


Fig. 21. Area of the Agora in the Fifth Century after Christ, Restored Plan

cloistered court, with a monumental entrance in its north side. From this court one proceeded south up a broad stairway through a square hall into a semicircular corridor that gave access to the southern elements of the complex, viz. another cloistered court which was flanked on the east by a lesser court surrounded by rooms and on the west by a bath. To the east of the central part of the whole complex a considerable area was enclosed by a field wall and a still larger area was similarly enclosed to the west. A large rectangular building to the northwest, i. e. to the east of the ruins of the Stoa of Zeus, is identical in date and in technique of construction with the great complex and may be related to it in function. Whether any of the late Roman buildings that have appeared to the south of the main complex are to be connected with it in any way can only be decided by further excavation.

It is to be noted that the north cloister of the late complex is strikingly similar in dimensions and proportions to the Odeion; the late structure, however, was set some 13.50 m. farther north. A still more striking correspondence marks the handling of the north façade. In the late complex, as in the second period of the Odeion, great emphasis was put on this part of the building. Entrance was gained through three broad openings (as in the scaenae frons of the Odeion) and these openings were flanked by four of the colossal figures recovered from the debris of the Odeion.<sup>1</sup> The very massive foundations to east and west of the outermost figures suggest that they, or rather the piers behind them, were now made to support an arcuated entablature. The narrow compartments in the northwest and northeast corners of the court may well have accommodated stairways leading to a second storey of the cloister (reminiscent of the two-storeyed balcony of the earlier building).

The great complex, with its extensive courtyards, bath and enclosed areas, has the scheme of an ancient gymnasium, and, indeed, a re-used columnar grave monument bearing the inscription  $\Gamma\text{ΤΜΝΑ}|\Sigma\text{ΙΟΝ}$  which was found by Pittakis in 1848 alongside the colossal figures ("Erichthonios" and "Phorbas") may well be a boundary-stone of the establishment.<sup>2</sup>

The coincidence of position between the new building and the old, and the very evident imitation in the treatment of the north façade, suggest continuity of function between the two establishments. Until the later building has been more thoroughly

<sup>1</sup> Other antiquities in this area fared less well in the same period. Bishop Synesius, visiting Athens in A.D. 402, reports (as if a recent event) the removal of paintings from the Stoa Poikile by a proconsul (*Epist.* 54 and 136). Many fragments apparently from the superstructure of the Poikile were found in 1949 to the west of the Stoa of Attalos where they had been incorporated in a wall of the 5th century A.D. The Emperor Theodosius II (A.D. 408-450) carried off certain elephants from the Temple of Ares to adorn the Golden Gate of Constantinople (Georg. Kodin, *de Constant. sign.*, p. 47, 14). These works may well have come to light in the building operations for the great complex above the Odeion.

<sup>2</sup>  $\epsilon\phi.$   $\alpha\rho\chi.$ , 1855, p. 1261, No. 2557; *I.G.*, II<sup>2</sup>, 11030. Hymettian marble. Height, 0.64 m.; diameter, 0.25 m. The stone also bears a Christian cross.



explored and studied such conclusions must remain tentative, but it may already be proposed with fair assurance that this great complex was one and perhaps the principal seat of higher education in Athens in the fifth and sixth centuries. The tremendous extent of the establishment is readily understandable in view of the very great importance of the University in the economy of Athens at this time. It is likewise symptomatic of changing values that the ancient centre of civic life should have been overlaid by this sprawling seat of academic learning.

There is nothing to suggest that the Gymnasium flourished for any great length of time; there is, indeed, reason to believe that it went out of use and fell into decay as early as the sixth century.<sup>1</sup> If the identification with the University be admitted, this early decline may be attributed in part to the well known edict of A.D. 529 by which Justinian closed the schools of Athens. A few years thereafter, as we learn from the contemporary historian Agathias (II, 30), seven philosophers, "the flower of our age," departed from Athens and took up an unhappy residence in Persia. The complete abandonment of the great complex may have been due to the danger of incursions from the bands of barbarians known to have been moving about Greece in the sixth century.<sup>2</sup>

Between the sixth century and the tenth there is practically no evidence for habitation in this area and very little before the eleventh. A considerable number of coins and pottery of the eleventh and twelfth centuries, found in association with tenuous remains of house foundations, indicate that habitation had been resumed; the parish church of that period, the Church of the Holy Apostles, still stands some seventy-five metres to the southeast of the Odeion.<sup>3</sup> Thenceforward there is evidence for more or less continuous habitation until the beginning of the current excavations.

The colossal figures make a shadowy first appearance in modern literature in the fifteenth century. The anonymous Greek author of a tract appropriately entitled "The Theatres and Schools of Athens" (dateable about the middle of the fifteenth century), refers to "statues of Zeus standing" in an area that can be fixed with fair assurance between the Tower of the Winds and the Hephaisteion.<sup>4</sup> A few years later, perhaps in 1466, the north Italian who now passes under the name of the "Milan Anonymous" wrote "*non molto lunta(no) dal detto aedificio* [the Hephaisteion]

<sup>1</sup> Compare the history of the water-mill immediately to the east of the Gymnasium (*Hesperia*, V, 1936, pp. 70-90). Built probably in the third quarter of the fifth century after Christ, it was destroyed by fire and abandoned about one hundred years later.

<sup>2</sup> I owe this observation to Professor Kenneth M. Setton who will develop the theme further in his forthcoming book on the history of Athens in the mediaeval period.

<sup>3</sup> A. Xyngopoulos, *Εὑρετήριον τῶν Μνημείων τῆς Ἑλλάδος*, I, B, Athens, 1929, pp. 77 ff.

<sup>4</sup> L. Ross, *Archäologische Aufsätze*, I, p. 251; Wachsmuth, *Stadt Athen*, I, p. 732; Judeich, *Topographie von Athen*<sup>2</sup>, p. 17.

*andando in athene apresso la via è un ho(mo) integro di fino marmoro di grande statura."*<sup>1</sup>

Thereafter the statues became immured in house walls from which they emerged only in consequence of the destruction that occurred in this part of the town in the War of Independence.<sup>2</sup> Two statues are mentioned as early as 1835: the standing Giant at the extreme east of the Gymnasium series (our No. 9), and a fallen Triton (our No. 1). By 1853 one could see a third figure, a second Triton (our No. 2) in a dark house cellar.

The area of the colossal figures was one of the first to receive attention from the newly revived Archaeological Society in 1858. Excavations conducted in that year led to the complete exposure of all three figures and the discovery of the base for a fourth. The westernmost Triton was re-erected and the area was fenced.<sup>3</sup> The excavation was resumed but not completed by the Archaeological Society in 1870 and a first plan of the area was published.<sup>4</sup> In 1895/96 the Society once more cleaned up and fenced the area; in the latter year the westernmost Triton (our No. 1) recovered his head which had some years before been brought back from Eleusis.<sup>5</sup> Then or soon thereafter the third figure, the second Triton (our No. 2), was re-erected. The Society took up the excavation for the last time in 1912. The chief result of the work of that year was the exposure of the northeast corner of the Gymnasium. The scheme of the north façade of the building with its three entrance ways flanked by four colossal figures was thus established, but the purpose of the structure remained obscure.<sup>6</sup> No further field work was done until the whole area was opened up in the Agora campaigns of 1934 and 1935.

It would be of little profit in the present state of our knowledge to review all the speculations of earlier scholars as to the identification of the colossal figures and the nature of the building or buildings with which they were associated. It may be observed, however, that everyone who has concerned himself seriously with the matter has recognized that the statues are not now in their original position but that they must derive from a building earlier than that in which they at present stand.<sup>7</sup> As to the dates of the two periods there has also been a fair degree of unanimity,

<sup>1</sup> *Ath. Mitt.*, XXIV, 1899, p. 77; Judeich, *op. cit.*, p. 16.

<sup>2</sup> Ross, *op. cit.*, p. 259; *Das Theseion und der Tempel des Ares*, Halle, 1852, p. 65. A documented account of the history of the "Giants" in the nineteenth century is given by Ch. van Essen in *B.C.H.*, L, 1926, pp. 210-212. Cf. also Wachsmuth, *Stadt Athen*, I, pp. 158 ff.; II, pp. 526 f.; Judeich, *Topographie von Athen*<sup>2</sup>, pp. 330 f.

<sup>3</sup> Συνοπτική Έκθεσις τῶν Πράξεων τῆς Ἀρχαιολογικῆς Ἑταιρείας, 1859, pp. 14 ff.

<sup>4</sup> Πρακτικά, 1870/71, pp. 12 ff., 33 ff.

<sup>5</sup> Πρακτικά, 1895, p. 19; *Ath. Mitt.*, XXI, 1896, p. 109.

<sup>6</sup> Πρακτικά, 1912, pp. 91-99.

<sup>7</sup> The distinction goes back at least to 1841 (H. N. Ulrichs, *Annali dell' Istituto*, XIII, 1841, p. 75 = *Reisen und Forschungen in Griechenland*, II, Berlin, 1863, p. 136).



for the carving of the figures has been attributed to the period of Hadrian or the Antonines<sup>1</sup> while the pedestals and the related foundations have been regarded as of late imperial times.

Opinions have differed more widely on the significance of the figures. Some scholars, including Gerhard in 1837<sup>2</sup> and Wachsmuth in 1874,<sup>3</sup> have maintained that the statues were merely Telamones, i. e. sculptural supports beneath the architrave of a colonnade. Ludwig Ross, on the other hand, who had interested himself in the statues since their earliest reappearance, argued vigorously for their identification with the Eponymous Heroes of Attica mentioned by Pausanias (I, 5, 1), the snaky extremities marking Kekrops and Erechtheus, the fishy tails indicating Hippothoon or Aigeus.<sup>4</sup> This more picturesque explanation was recorded in the name of the street that ran past the west side of the monument: the Street of the Eponymoi, which, alas, has been cut away in the course of the current excavations, all save a few metres of its north extremity between the Athens-Peiraeus Railway and Hadrian Street.

Equally divergent have been the views as to the scheme and function of the building to which the colossal figures belonged. In 1872 Stark expressed the belief that the statues had adorned a colonnade of the time of Hadrian or the Antonines.<sup>5</sup> Equally happy was Milchhöfer's conjecture that the colossal figures came from some theatre-like building.<sup>6</sup> Less well grounded has proven Adler's hypothesis that the statues were originally designed for a "Festhalle" connected with the Gymnasium of Ptolemy and intended for the celebration of the Ptolemaia when Ptolemy became one of the Eponymoi; the curious scheme of the building would have been derived from the royal tent of the Egyptian king.<sup>7</sup> Nor did the latest and most detailed study of the whole problem prior to the beginning of the current excavations lead to satisfactory conclusions. Ch. van Essen, writing in 1926, argued that the colossal figures had been designed originally as parts of a monumental screen like the Incantada of Thessalonika and that the building in which they were eventually incorporated was a basilica lying in an east to west direction across the middle of the Agora.<sup>8</sup>

#### SUMMARY

The large building the ruins of which have come to light in the current excavations at the very middle of the ancient Agora may be recognized with certainty as the "theatre called the Odeion" mentioned by Pausanias in his account of the Agora;

<sup>1</sup> As early as 1837 an Antonine date was proposed by Raoul Rochette (*Nouv. Annal. de l'Inst. Arch.*, I, ii, Paris, 1837, pp. 313 ff.).

<sup>2</sup> *Annali dell' Istituto*, IX, 1837, pp. 109 ff.

<sup>3</sup> *Stadt Athen*, I, pp. 158 f., II, pp. 526 f.

<sup>4</sup> *Das Theseion und der Tempel des Ares*, pp. 65 ff.

<sup>5</sup> *Allg. Zeit.*, 1872, p. 5432 (quoted by Wachsmuth, *Stadt Athen*, I, p. 159).

<sup>6</sup> A. Baumeister, *Denkmäler*, I, Munich and Leipzig, 1885, p. 168.

<sup>7</sup> *Die Stoa des König Attalos, Winkelmannsprogramm*, Berlin, 1874, pp. 18 f.

<sup>8</sup> *B.C.H.*, L, 1926, pp. 183-212.

the same building was referred to a few years later by Philostratos as the Agrippeion. It was erected about the year 15 B.C., apparently by Agrippa the minister of Augustus, and was intended to provide the Athenians with an up-to-date concert hall.

The site is remarkable in two respects. The building was placed, deliberately no doubt, in an area which, as there is good reason to believe, had been the "orchestra in the Agora," the scene of dramatic and musical events before the construction of the Theatre of Dionysos. More precisely the Odeion was set on the very axis of the square in such a way that it dominated the area in a fashion best paralleled in the imperial fora of Rome.

The scheme of the building comprises two almost completely distinct elements: in the middle a roofed theatre flanked to east, west and south by a continuous narrow appendage which may best be interpreted as a balcony or loggia for the convenience of spectators viewing the Panathenaic Procession and other ceremonies. The roof of the central core rose high above that of the surrounding balcony and permitted a basilica-like scheme of lighting, through an open colonnade on the south, probably through windows in the other three sides. The balcony was supported on a basement-like storey which would seem to have been otherwise little used.

The history of the Odeion falls into two periods. The original auditorium was a perfect square in plan, some 25 metres to the side and without a trace of interior supports for the roof. Its eighteen rows of marble benches might have seated 1,000 people. The orchestra, well under a semicircle in area, was paved with *opus sectile* of marble and stone in various colors. The long narrow stage was remarkable chiefly for the marble screen panelled with herms that adorned its front. Back of the scaenae frons lay the scaena consisting of a single room also floored with marble. The scaena was accessible from outside through a small columnar porch that rose against the north façade on the axis of the building. General admission was probably from the south, i. e. from the terrace of the Middle Stoa, through the south balcony and a lobby.

From the striking combination of elements drawn both from the familiar type of Hellenistic roofed auditorium as exemplified by the Bouleuterion of Miletos and from the Roman basilica, as well as from the mixture of local interest and Roman formal design evident in the choice of site, the Odeion would seem to have been the creation of someone thoroughly familiar with the architecture both of Old Greece and of Italy, or, perhaps more likely, the joint product of a team of architects comprising both Greeks and Romans.

About the middle of the second century after Christ a collapse of the roof led to a remodelling which we have designated as the beginning of a second period. The principal alterations affected the auditorium and the north façade. The cross-wall between auditorium and lobby was shifted northward 7.66 m., whereby the seating capacity was reduced by one half. This change was presumably intended to reduce the difficulty and the hazard of roofing. The small north porch was now demolished



and the whole north wall of the central core of the building was opened up in such a way as to convert the scaena into an open colonnade. The entablature of this new porch was supported by six square piers adorned on their outer faces with representations in high relief of Tritons and Giants which prove to be adaptations of the Poseidon in the west pediment of the Parthenon and the Hephaistos in the east pediment respectively. Access to the porch from the north was made easy by means of seven flights of marble steps separated and flanked by long pedestals suitable for the support of seated statues of life size. Two seated statues found in the vicinity are of suitable scale and date; the figures are of philosopher types.

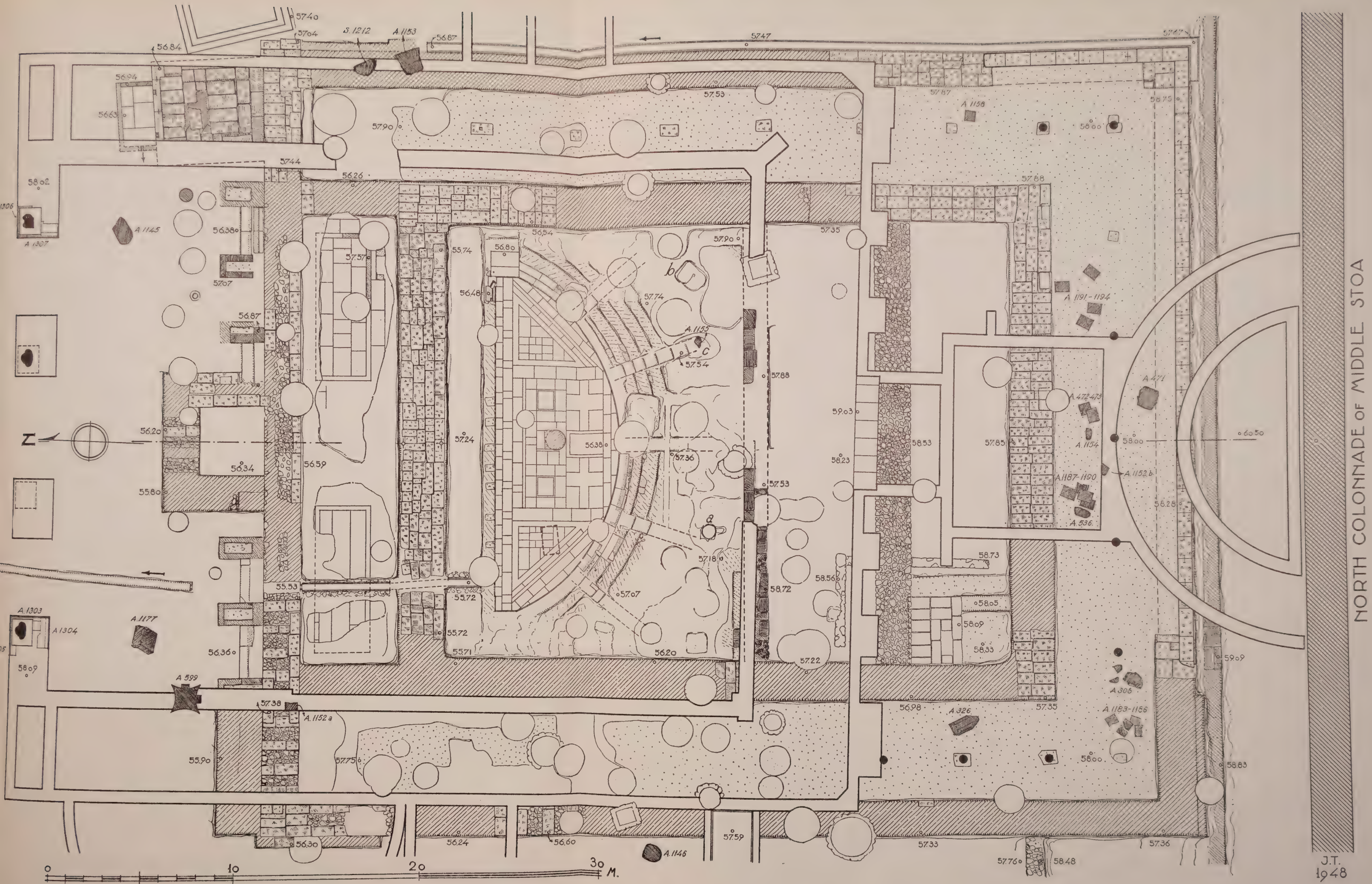
The reduction in the size of the auditorium and the conversion of the scaena into a porch accord well with the fact that Philostratos mentions the building only as the scene of rhetorical displays by sophists. It may be inferred that the building in its second period served chiefly as a lecture hall and that its place as a concert hall was taken by the Odeion built by Herodes son of Atticus to the south of the Acropolis and dedicated to the memory of his wife Regilla who died *ca.* A.D. 160. The decision may have been inspired by the far-reaching changes in university education that are known to have been carried out under Antoninus Pius and in which Herodes, as the leading sophist of his day, was directly interested. It may be observed that the sculptural decoration of the new porch was entirely in the spirit of the "New Sophistic," consisting as it did of a painstaking mechanical adaptation of a classical theme.

In its new form the building stood until A.D. 267 in which year it was destroyed by fire in the sack of the Agora by the Herulians. Most of its stone work was soon thereafter stripped away for re-use in the new fortifications, the so-called "Valerian Wall." The area lay desolate until *ca.* A.D. 400. Then a very large building complex that has the essential features of a gymnasium was laid over and around the site of the old building. Four of the colossal marble figures were plucked out of the ruins of the Odeion and set up to adorn the northern entrance of the new building. This fact, coupled with various other correspondences, suggests some continuity in function between the old and the new. It appears likely, in other words, that the Gymnasium also served educational purposes; it may well, indeed, have been one of the principal university buildings in this Indian summer of Athens when her schools were the chief glory of the ancient city and at the same time her principal source of revenue. The university of Athens was closed by decree of Justinian in A.D. 529. The excavation has shown that the Gymnasium was abandoned in the course of the sixth century and soon thereafter buried in silt.

HOMER A. THOMPSON







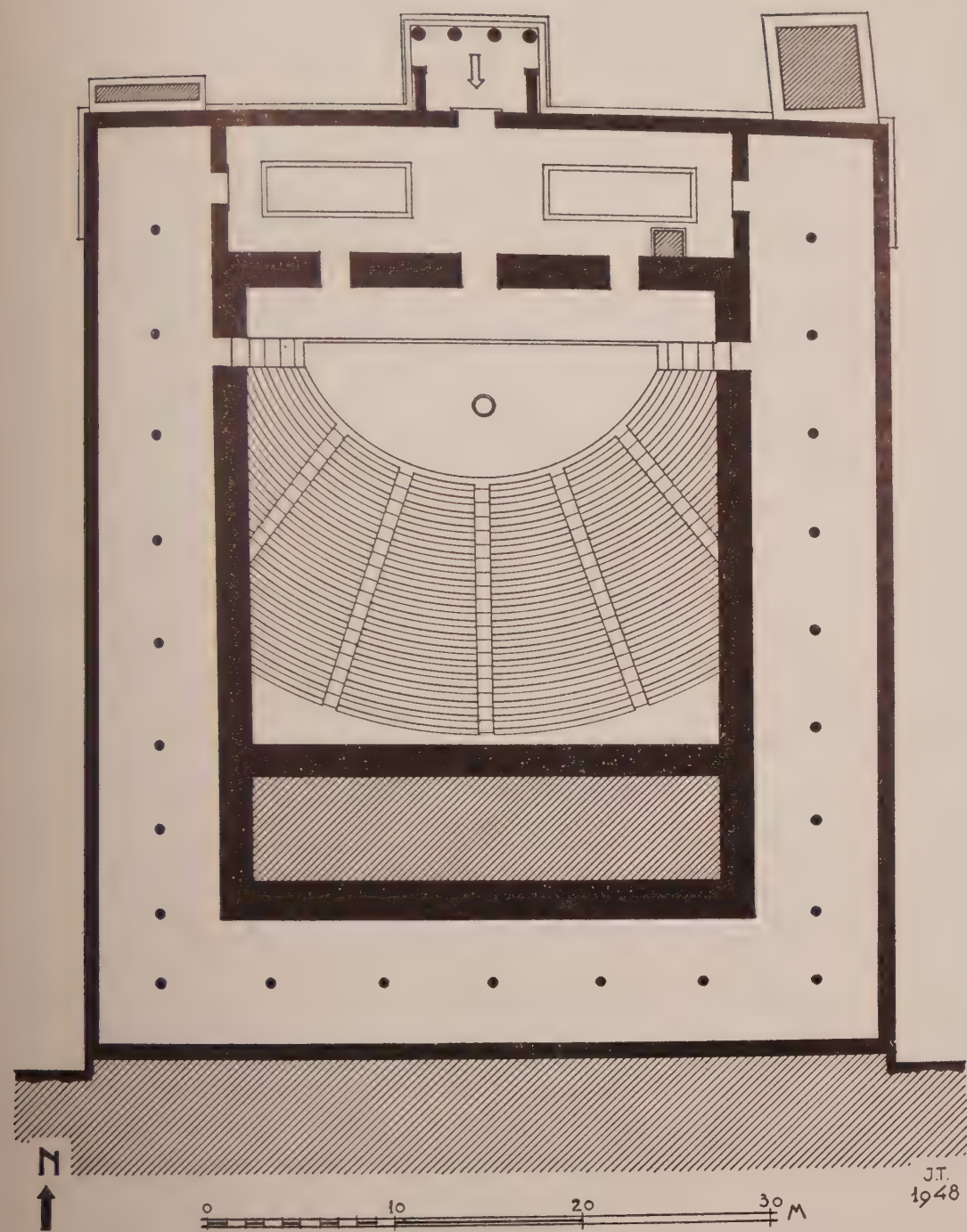
### Plan of the Odeion, Actual State

J.T.  
1948

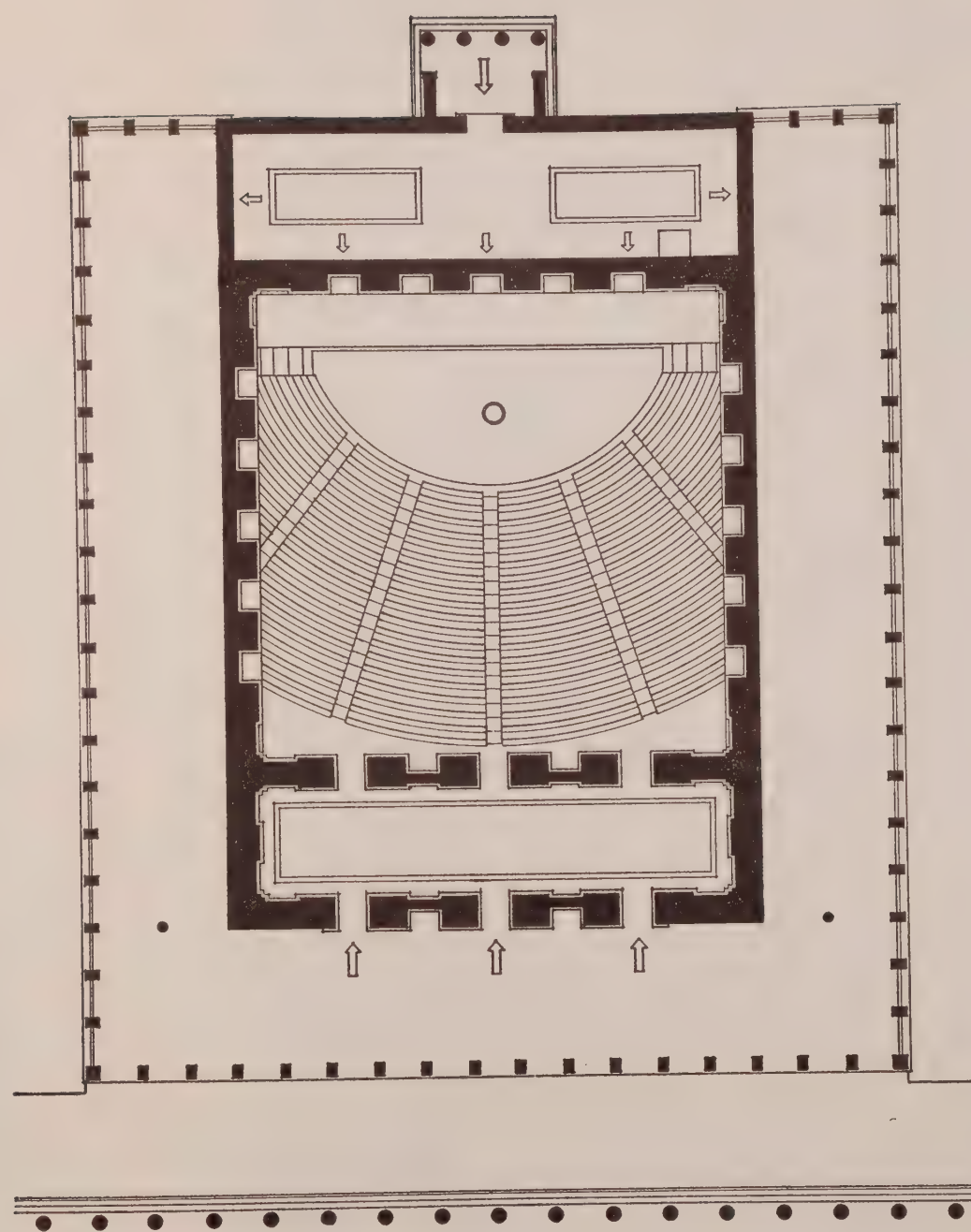




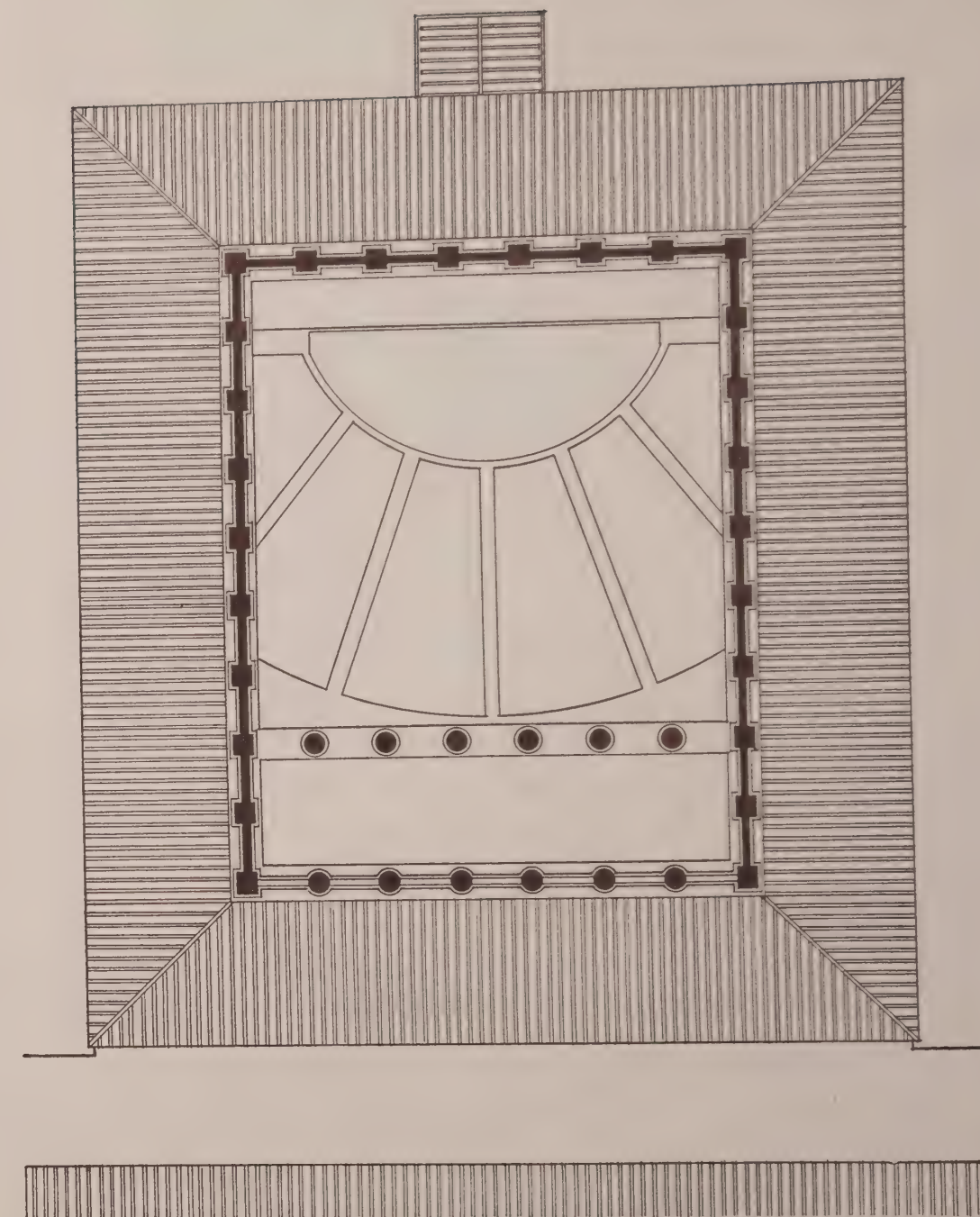




Ground Level



Level of the Top of the Cavea

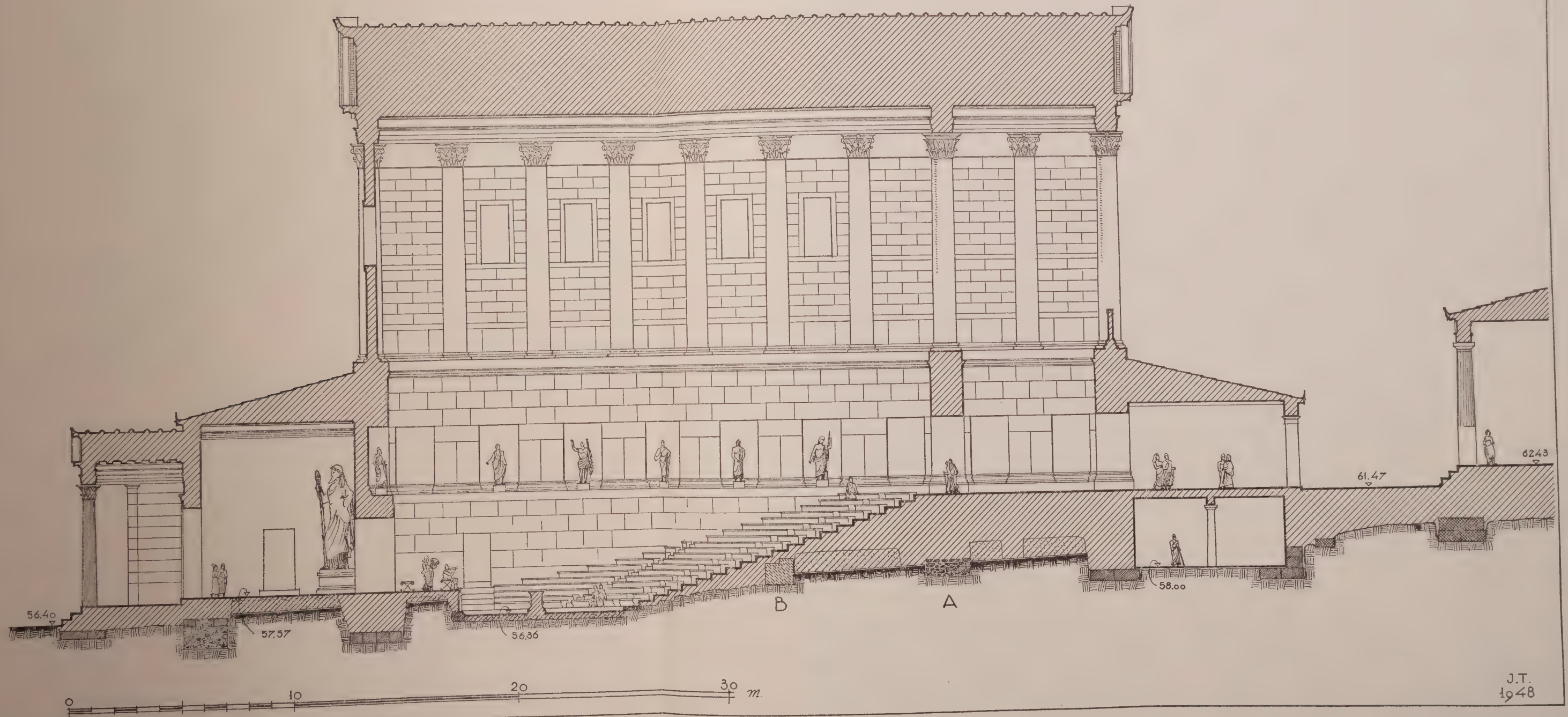


Level of the Second Storey

Plans of the Odeion, Period I, Restored



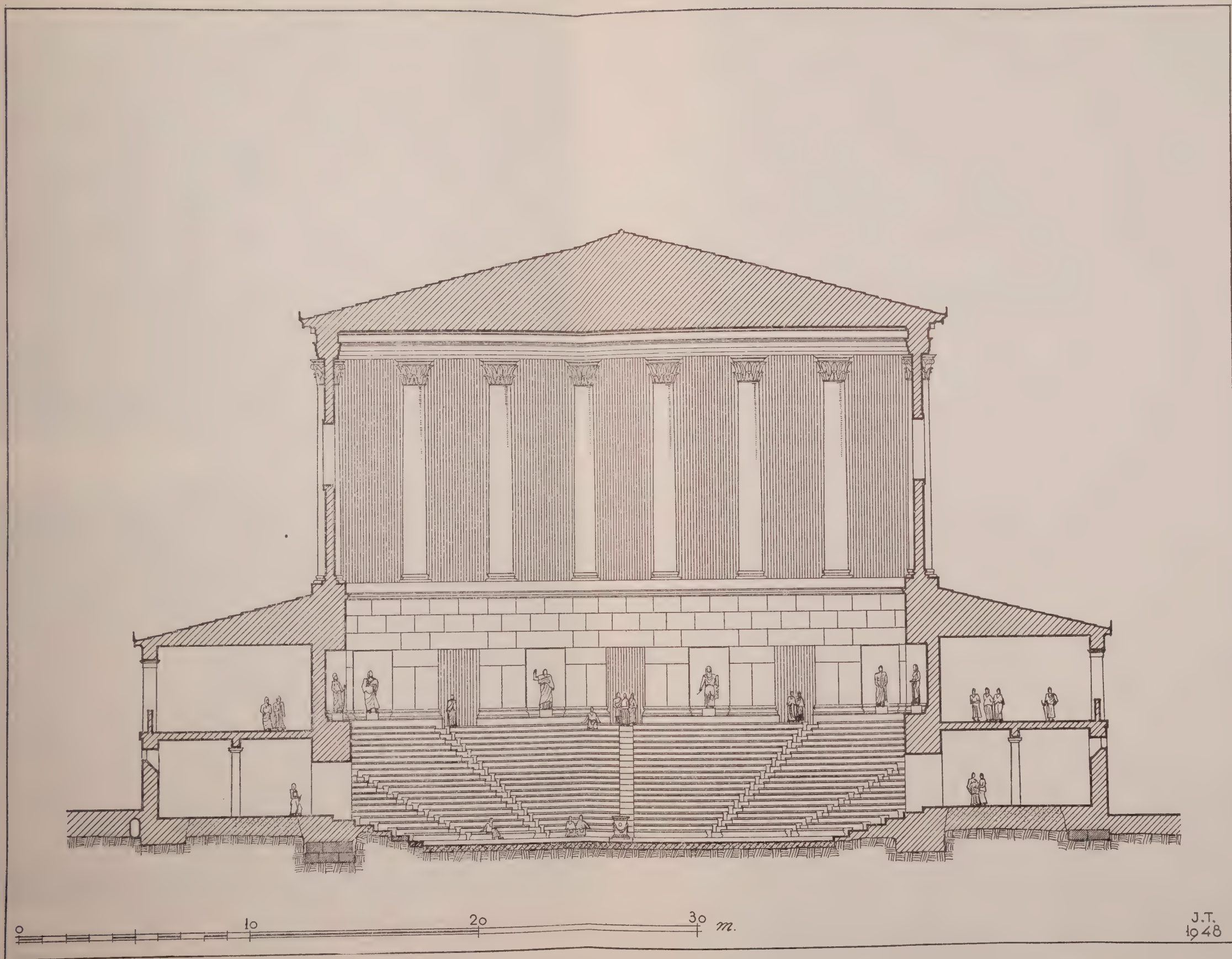




Restored Section through Odeion, Looking East



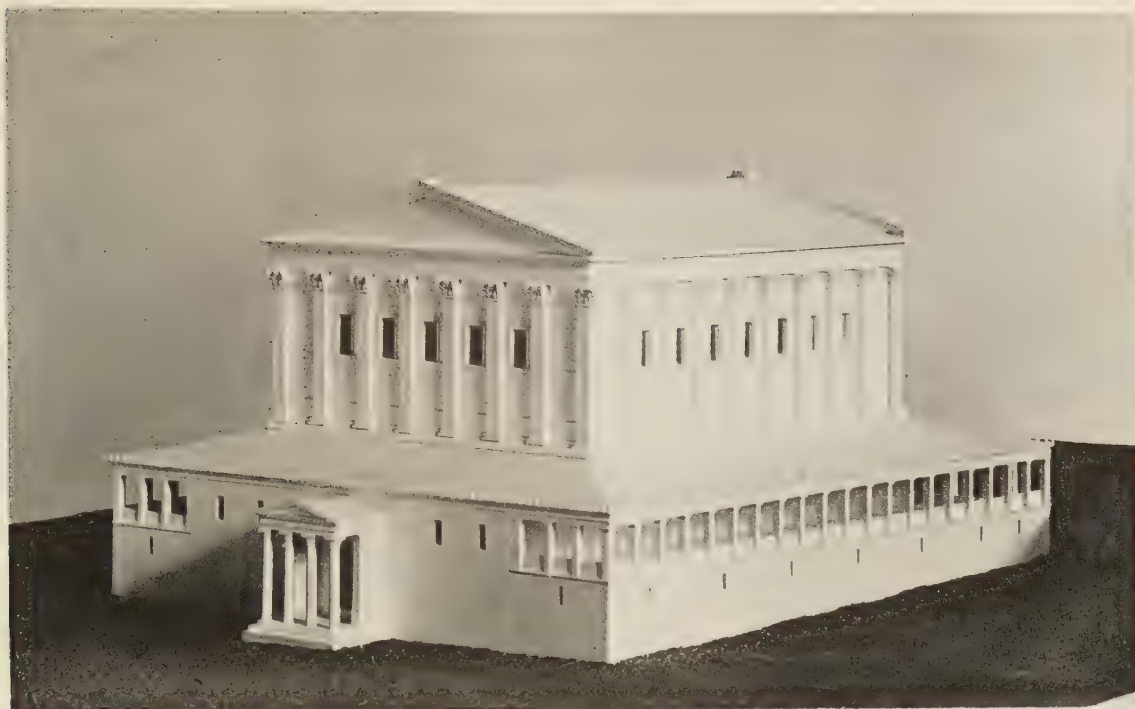




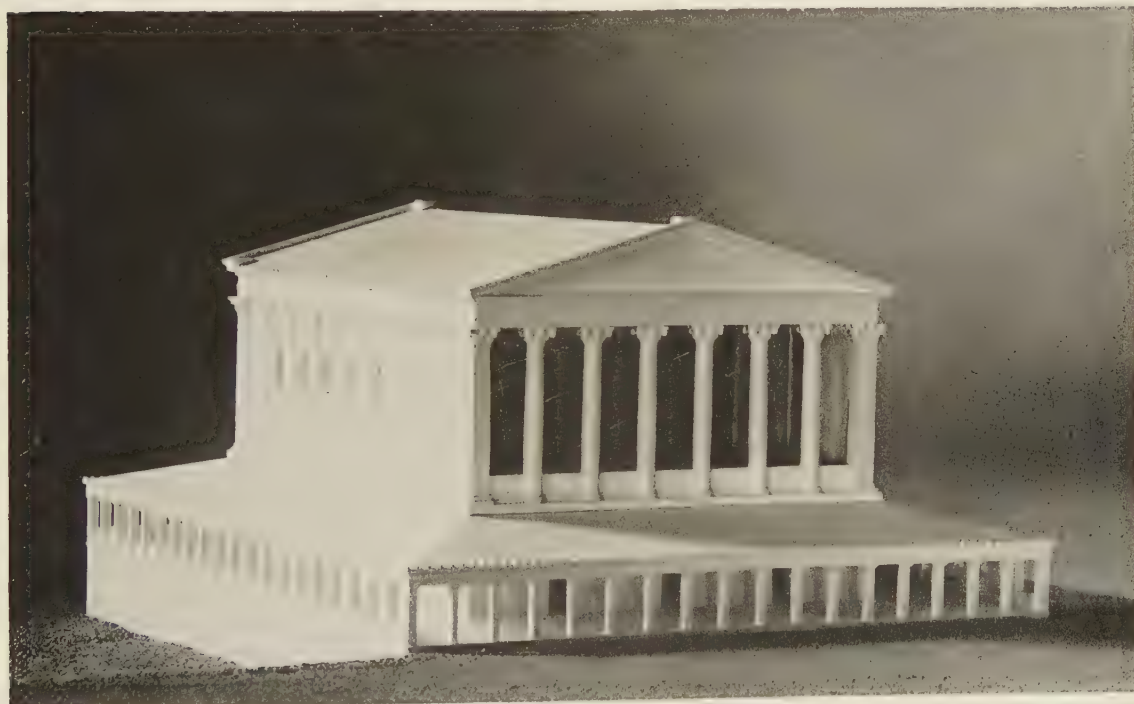
Restored Section through Odeion, Looking South







a. Model of the Odeion from the Northwest

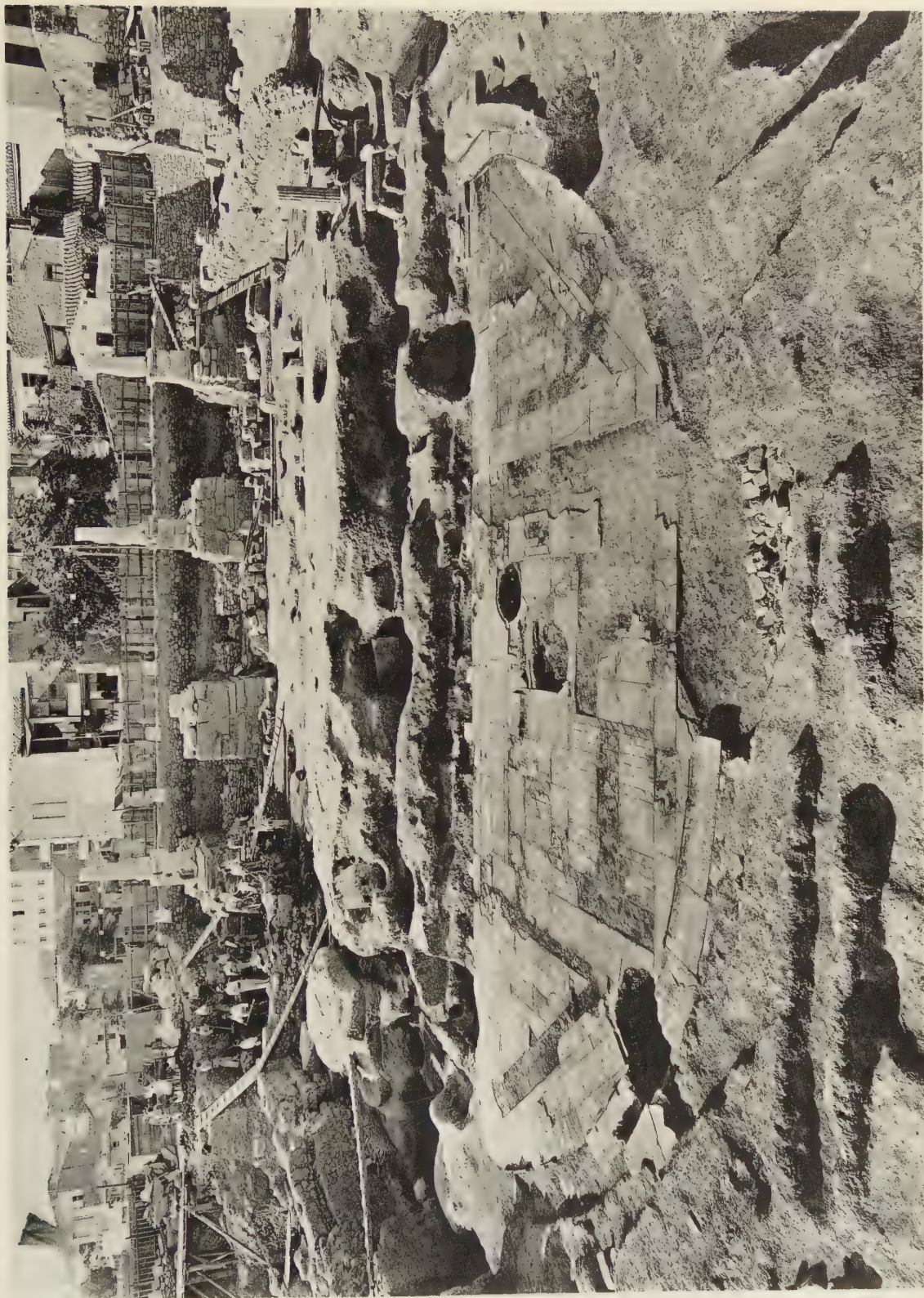


b. Model of the Odeion from the Southwest



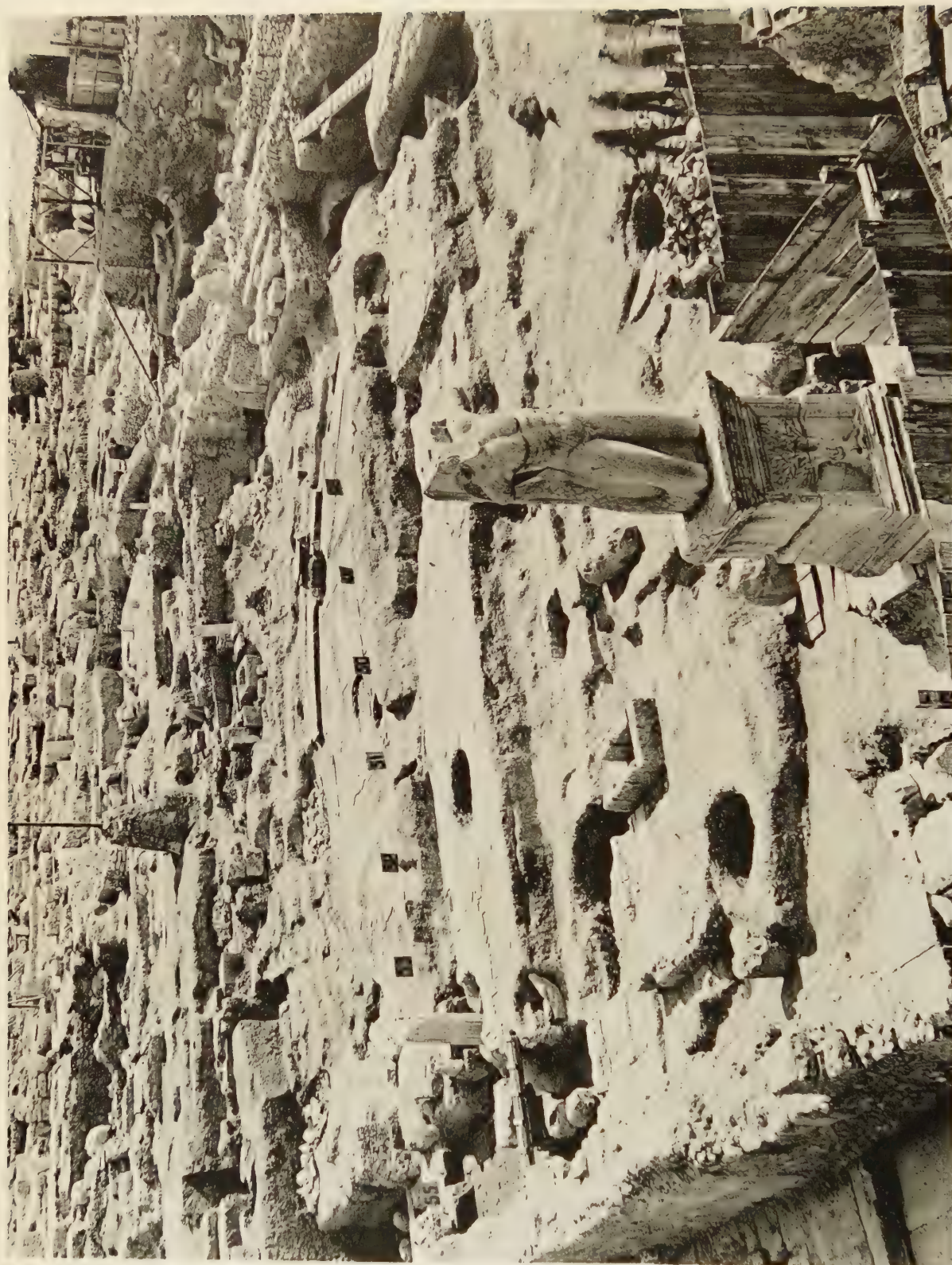
General View of the Odeion from the North (1947)





Orchestra, Stage and Scaena from the South (1935)





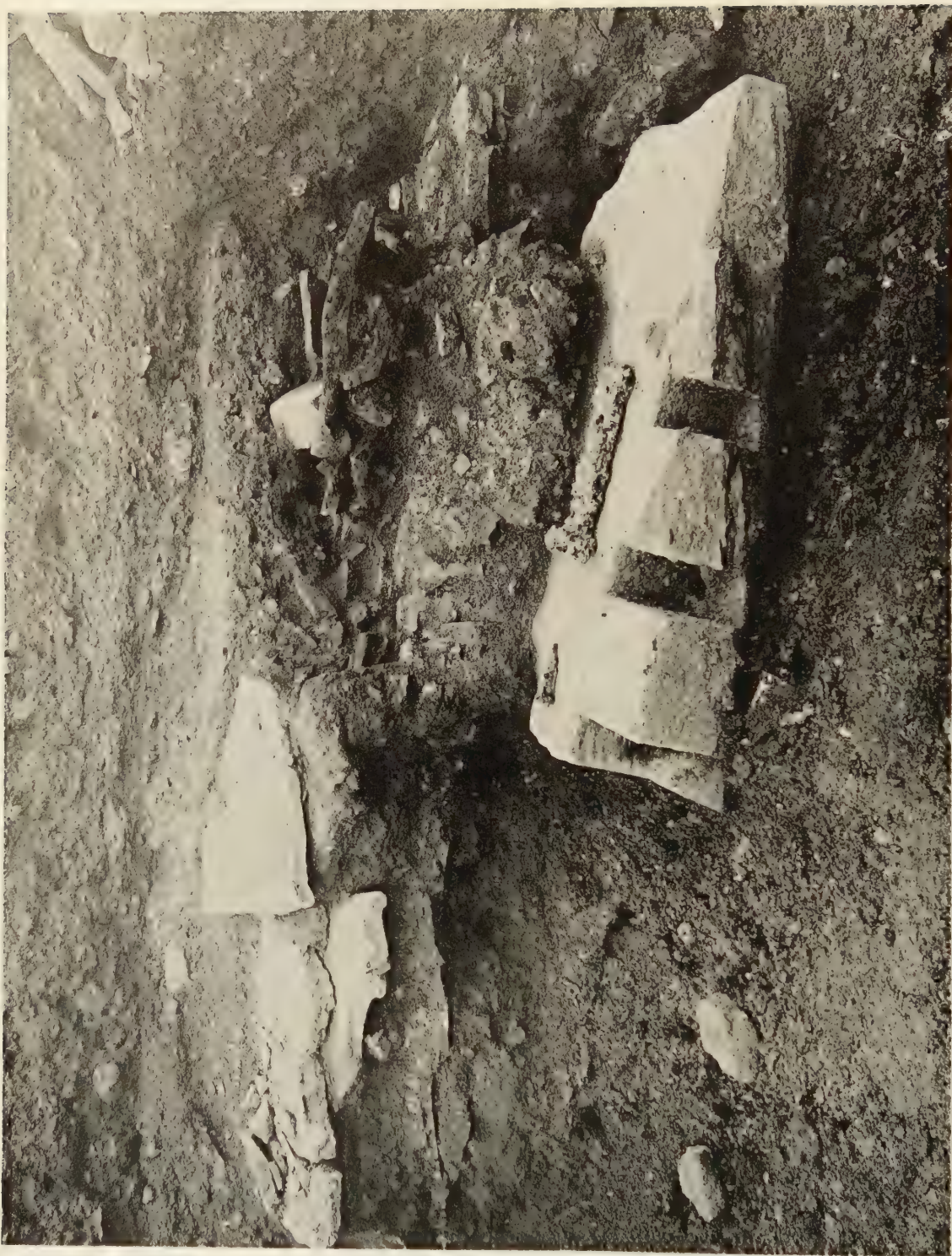
Site of the Odeion from the Northeast (1935)





Southwest Corner of the Odeion from the Northwest (1935)





Debris Overlying Odeion Floor in Southwest Corner (1934)





a. Central Part of Odeion from the East, Showing in the Middle the Pre-Odeion Floor of the Square



b. Pre-Odeion Foundation Near Southwest Corner of Odeion from the West





a. Southeast Corner of Odeion from the Northwest



b. North Foundation of Odeion from the East





a. Northeast Corner of Odeion from the North



b. North Foundation of Odeion from the North  
(In the lower left the northwest corner of the quadriga base)





a. Foundations for North Porch from the North



b. Northwest Corner of Odeion from the Northeast





a. Pilaster Capital (A 599), Side View



b. Pilaster Capital (A 599), Side View, Restored



a. Pilaster Capital (A 599), Outer Angle



b. Pilaster Capital (A 599), Inner Angle





a. Corinthian Capital Found in 1890/91, Side View



b. Corinthian Capital Found in 1890/91, Angle View



a. Corinthian Capital Found in 1890/91, Detail of Acanthus



b. Pilaster Base (Fragments A 1152 *a* and *b*)





a. Acanthus and Lotus Capitals (A 471, 1154)



b. Acanthus and Lotus Capital, Restored



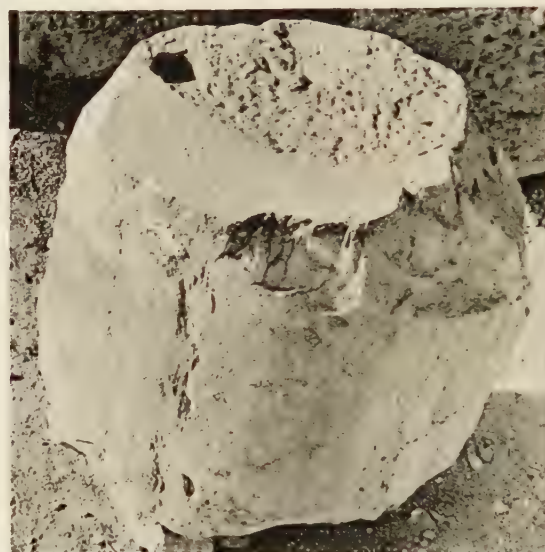
a. Acanthus and Lotus Capital (A 1153)



b. Acanthus and Lotus Capital (A 536)



c. Mason's Mark on Underside of Capital (A 1138)

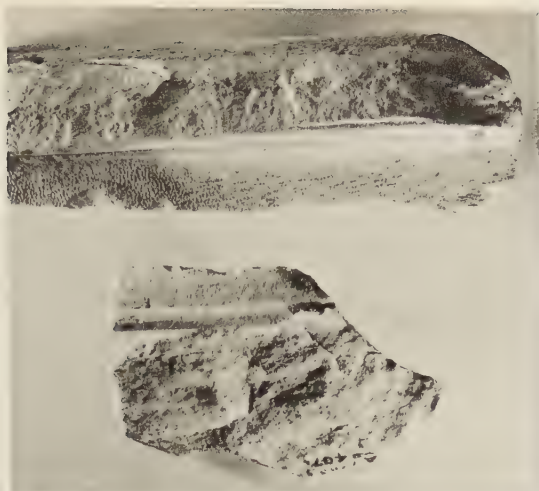


d. Column Drum (A 1145)

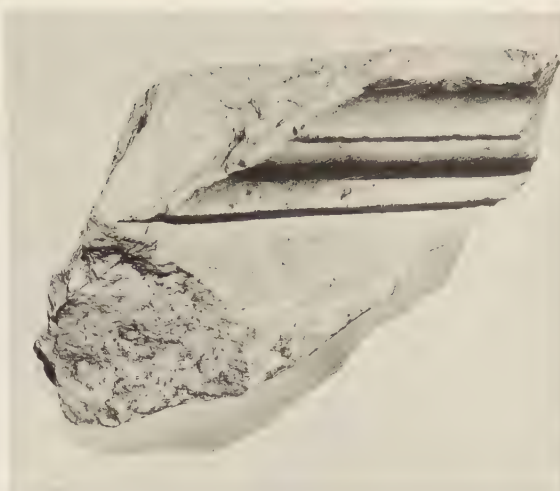


e. Bases of Round Columns (A 1396, 1150, 1151)





a. Crowning Moulding of Frieze (A 1383)



b. Crowning Moulding of Architrave (A 1241)



c. Cornice Block from Main Order (A 308)



d. Orthostate from Wall of Auditorium (A 1168)



e. Architrave of Main Order (A 326, 278)



a. Terracotta Antefixes (A 1197, 479, 562)

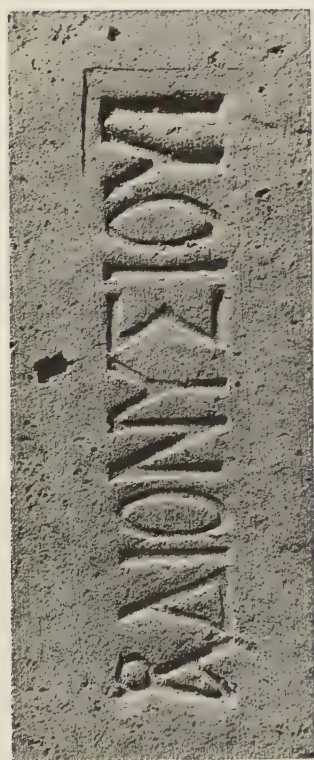


b. Terracotta Roof Tiles (A 1178-1181)



c. Terracotta Antefix from Middle Stoa (A 211)





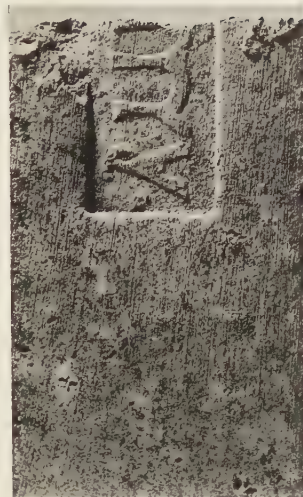
a. Tile Stamp, Dionysios Series



d. Tile Stamp, Medeios Series



b. Tile Stamp, Diodoros Series



e. Tile Stamp, Me(.....) Series  
(Not from Odeion)



c. Tile Stamp, Aigipyros Series



f. Tile Stamp, Mother of the Gods Series



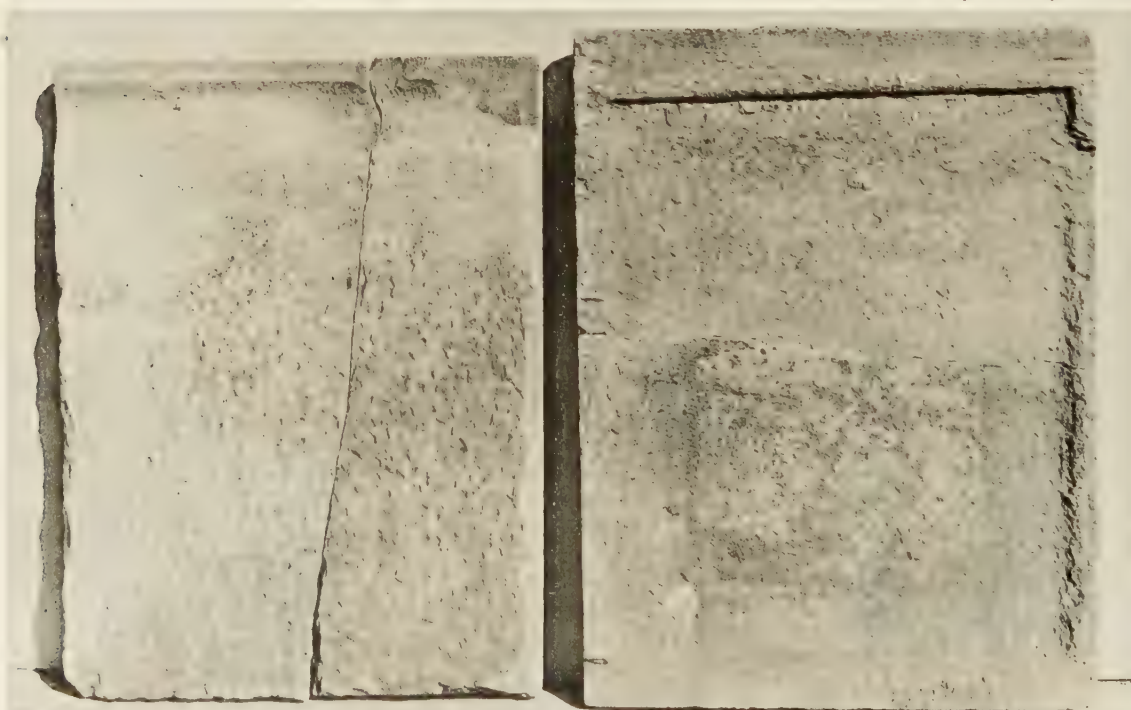
a. Marble Antefixes (A 1421, 553, 1406, 1182, 1420)



b. Marble Antefix and Cover Tile (A 170, 1440)

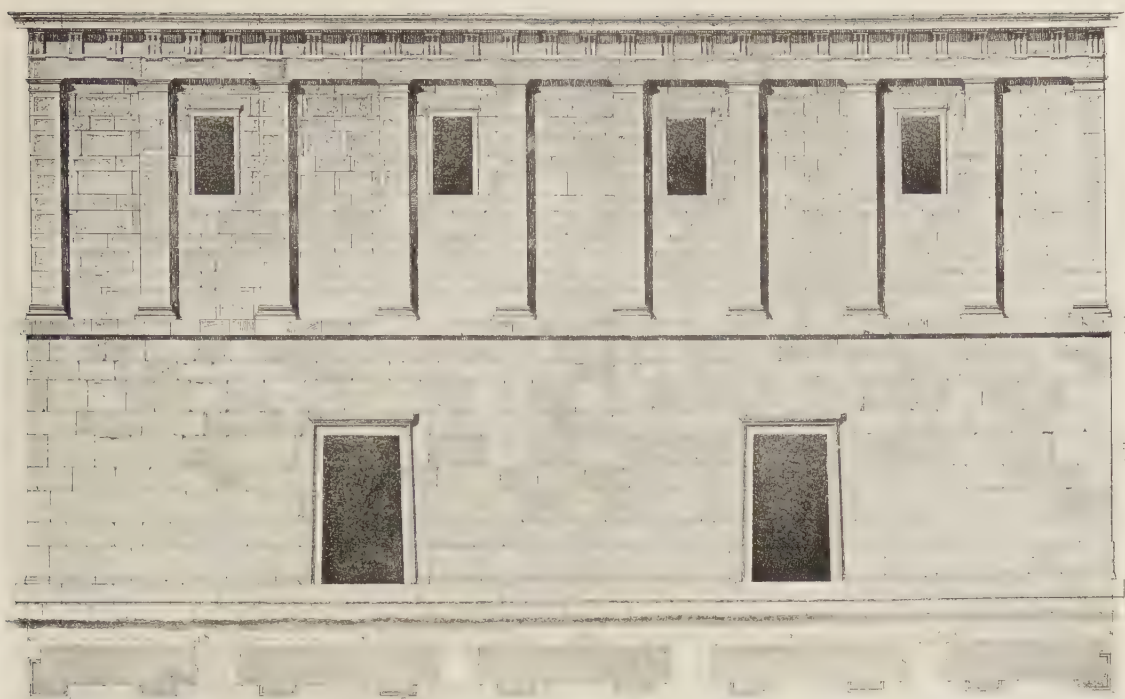


c. Marble Pan Tile with Mason's Mark (A 1184)



d. Marble Pan Tiles (A 472, 473)

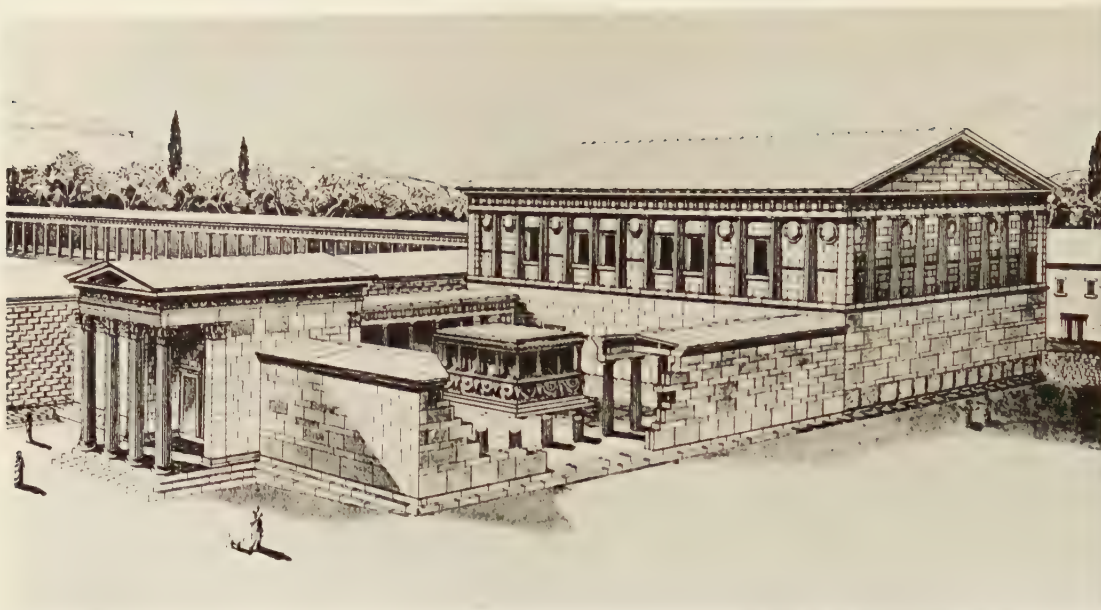




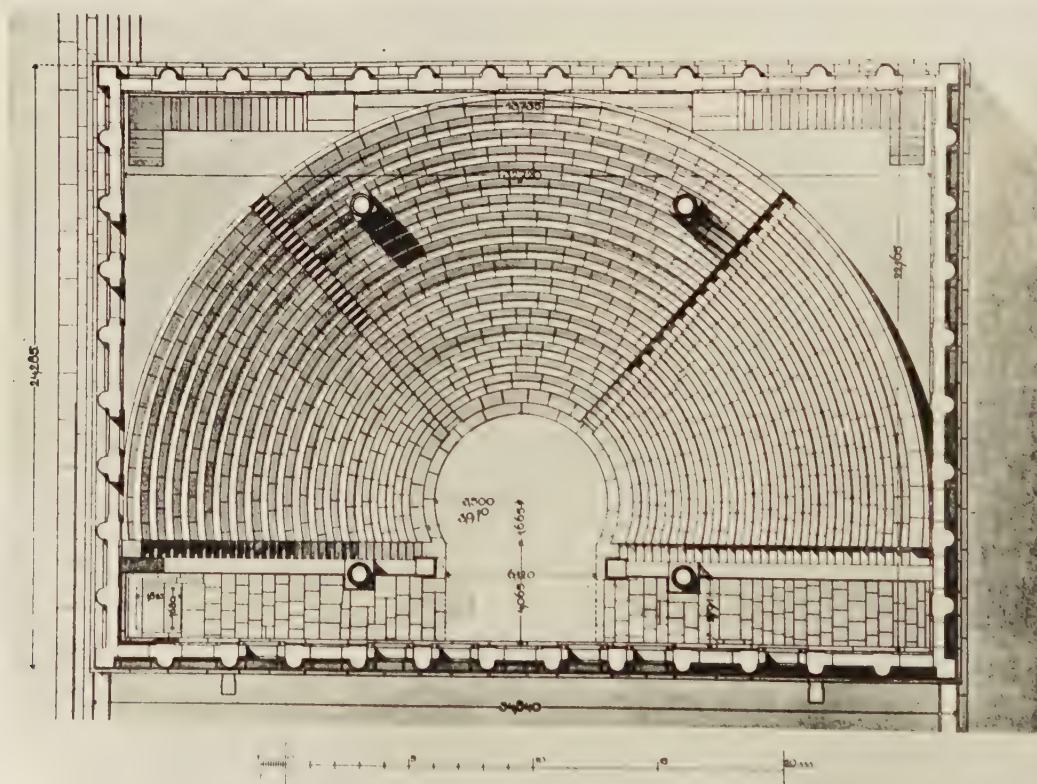
a. Odeion of Termessos, Elevation  
(Lanckoroński, *Städte Pamphylens und Pisidiens*, II, pl. XIV)



b. Erechtheion, from the West

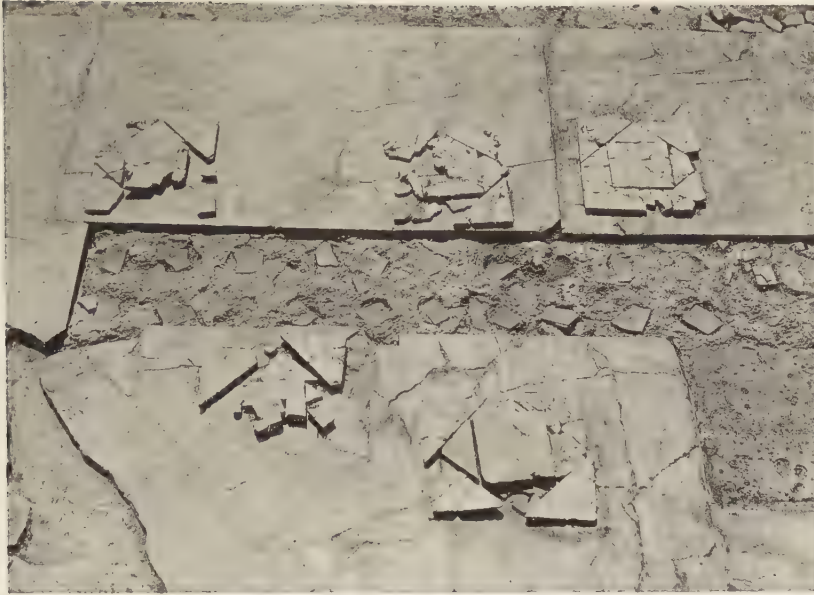


a. Bouleuterion of Miletos, Perspective Restoration  
(*Milet*, I, ii, pl. XIV)

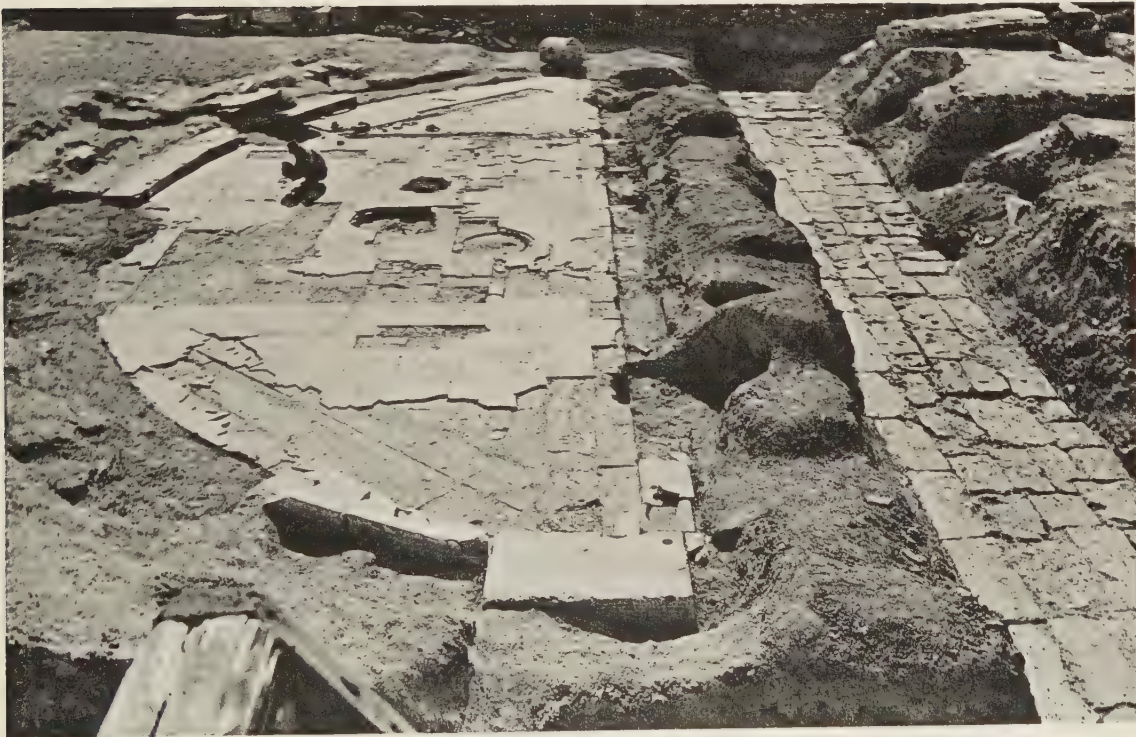


b. Bouleuterion of Miletos, Plan  
(*Milet*, I, ii, pl. IV)

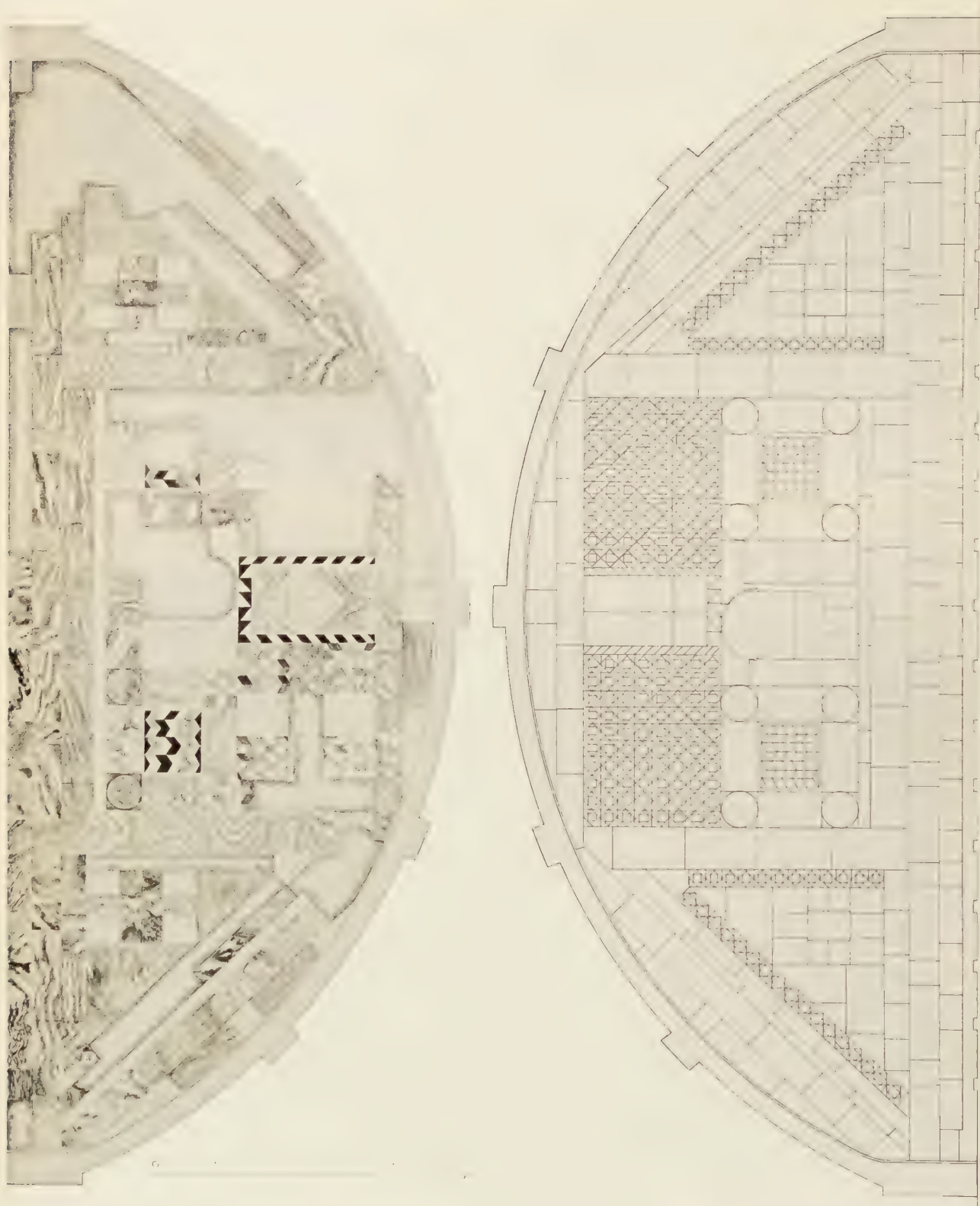




a. Orchestra Floor under Repair



b. Orchestra and Stage from the East



a. Orchestra Floor, Actual State (Water-color)

b. Orchestra Floor, Restored





a. Marble Bench Near East End of Orchestra



b. Northeast Corner of Orchestra, from the South





a. Remains of Marble Benches in West Part of Cavea



b. Marble Bench (A 1294)

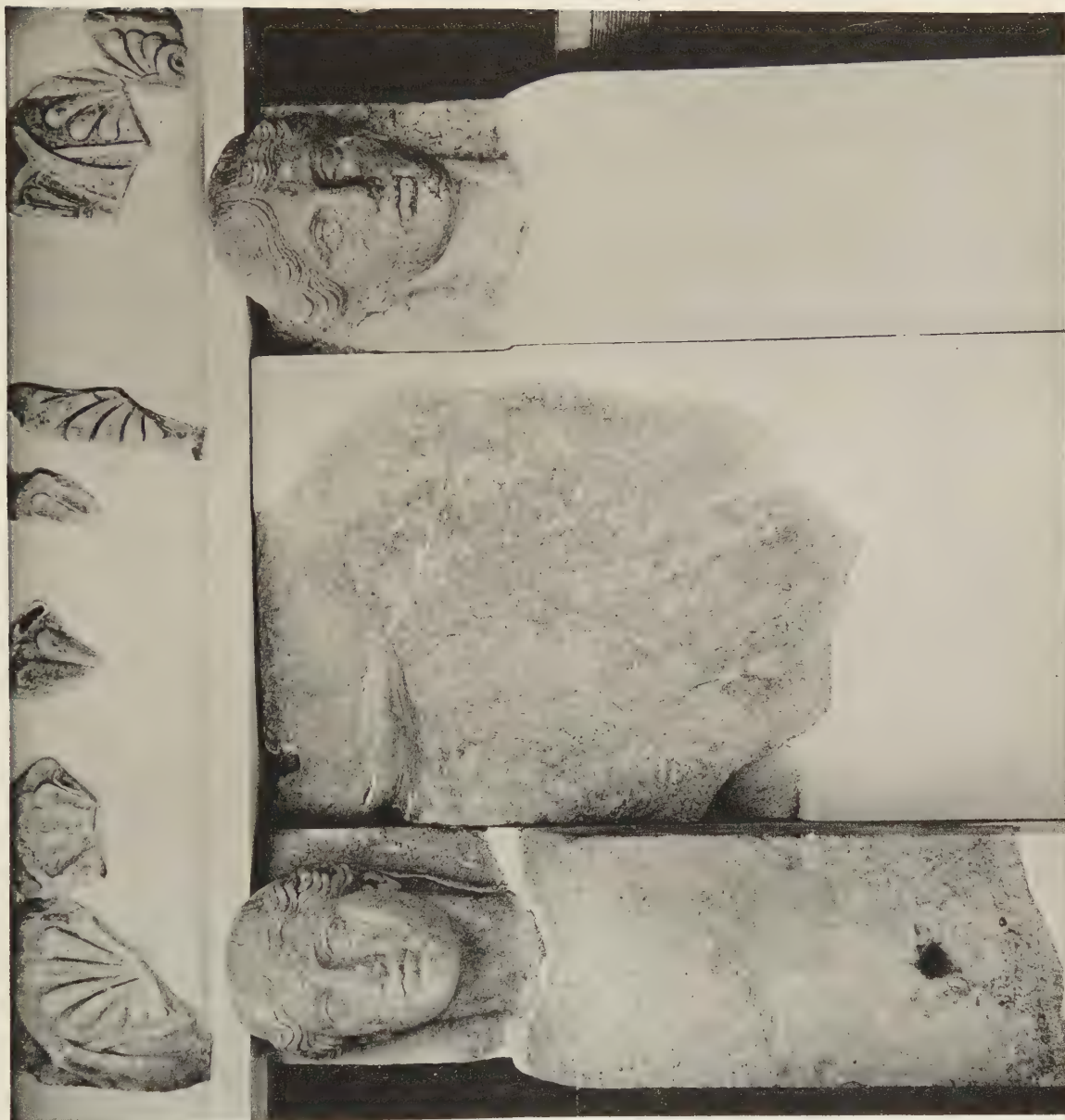


c. Moulded Plinth, Perhaps from Auditorium (A 1407)



d. Fragment of Marble Parapet (A 1404)





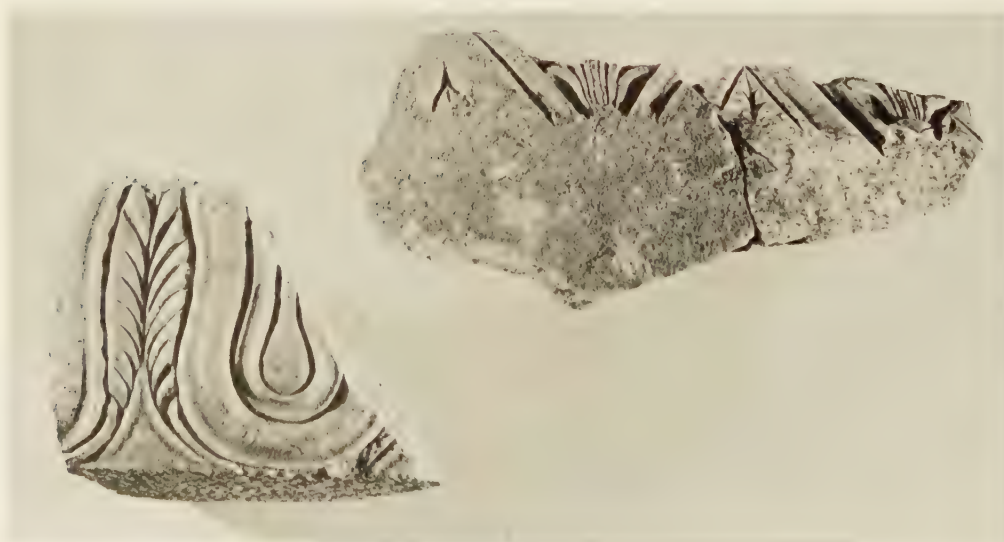
Elements of Stage Front



a. Moulding from Front Edge of Stage (A 586)



b. Lower End of Herm Shaft (S 1391)



c. Carved Moulding from Base of Altar (?) (A 594)





b

Female Head from Herm (S 553)



a



a. Male Head from Herm (S 558), Front



b. Male Head from Herm (S 558), Side



c. Male Head from Herm (S 558), Top



d. Male Head from Herm (S 597), Front





a. Fragmentary Column and Bearing Block in Basement of Balcony



b. Drain Along East Side of the Odeion, from the North



a



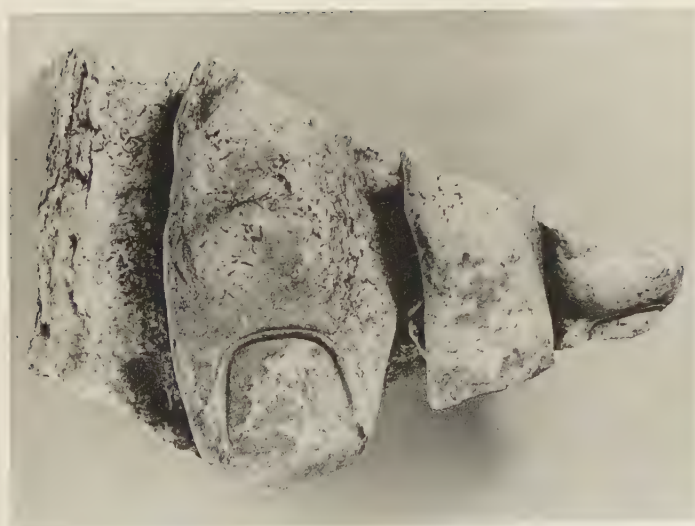
b

Statue of Dionysos Found Northeast of the Odeion (S 531)





a. Head of Athena from Debris of Odeion (S 481)



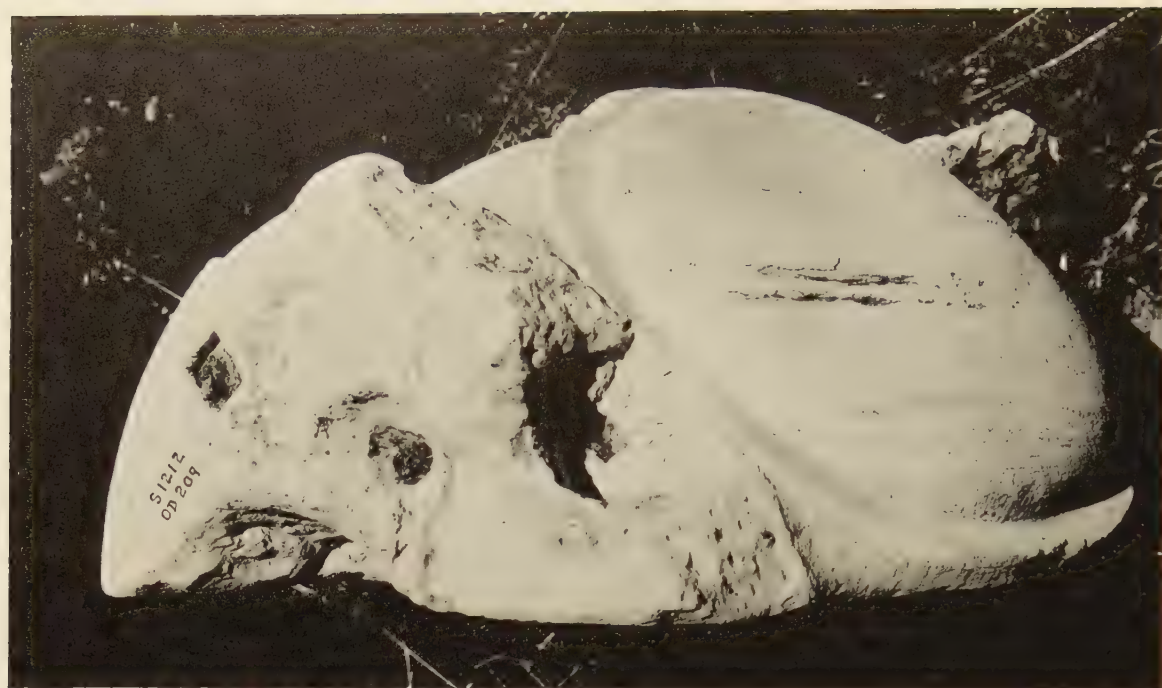
b. Fragment of Foot from North of Odeion (S 1220)



c. Fragments of Colossal Statue from North of Odeion (S 1305, 1343)



a. Base for Bronze Statue (S 1212)



b. Base for Bronze Statue (S 1212), Top

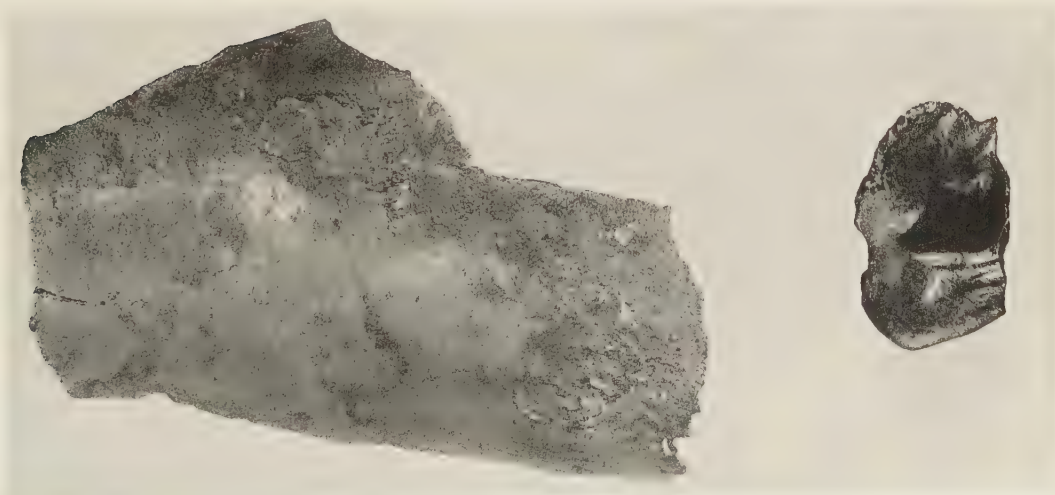


c. Fragment of Statue Base (S 1422)

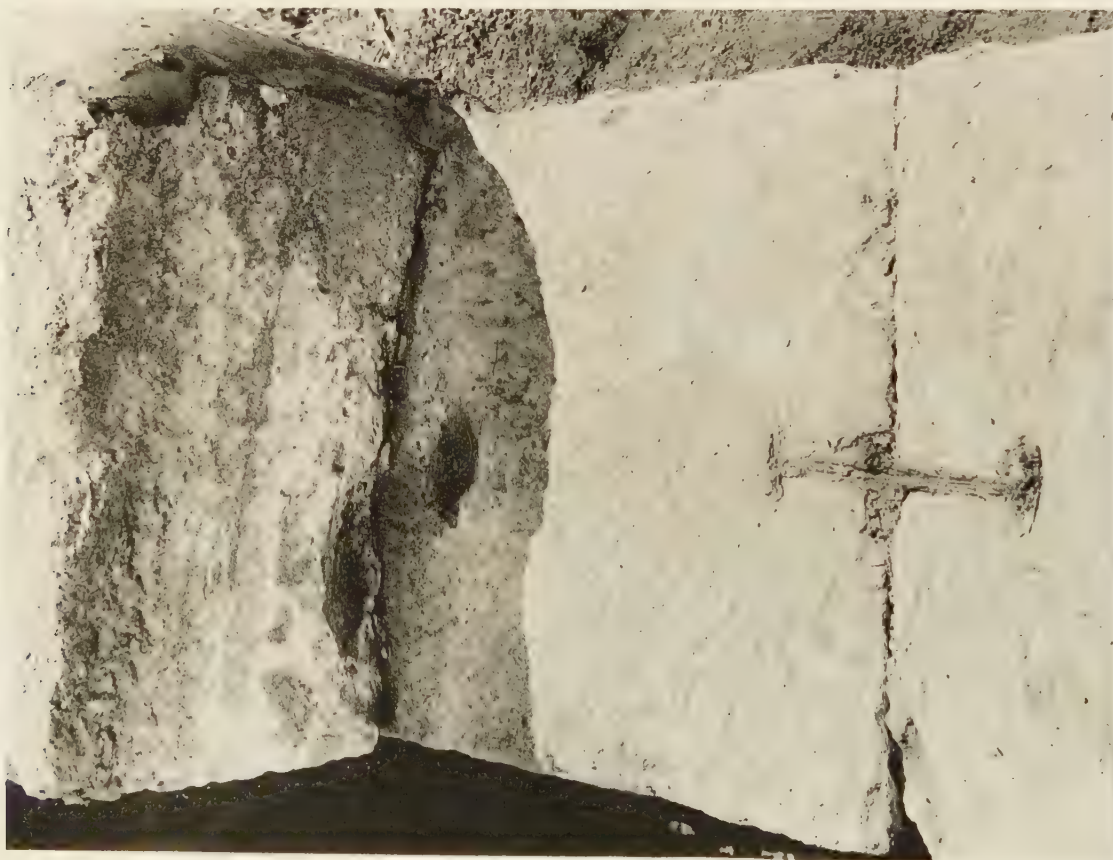




a. Fragments of Bronze Statue from Debris of Odeion (B 163)



b. Fragments of Bronze Statue from Debris of Odeion (B 589, 591)



a. Clamp in East Wall of Odeion

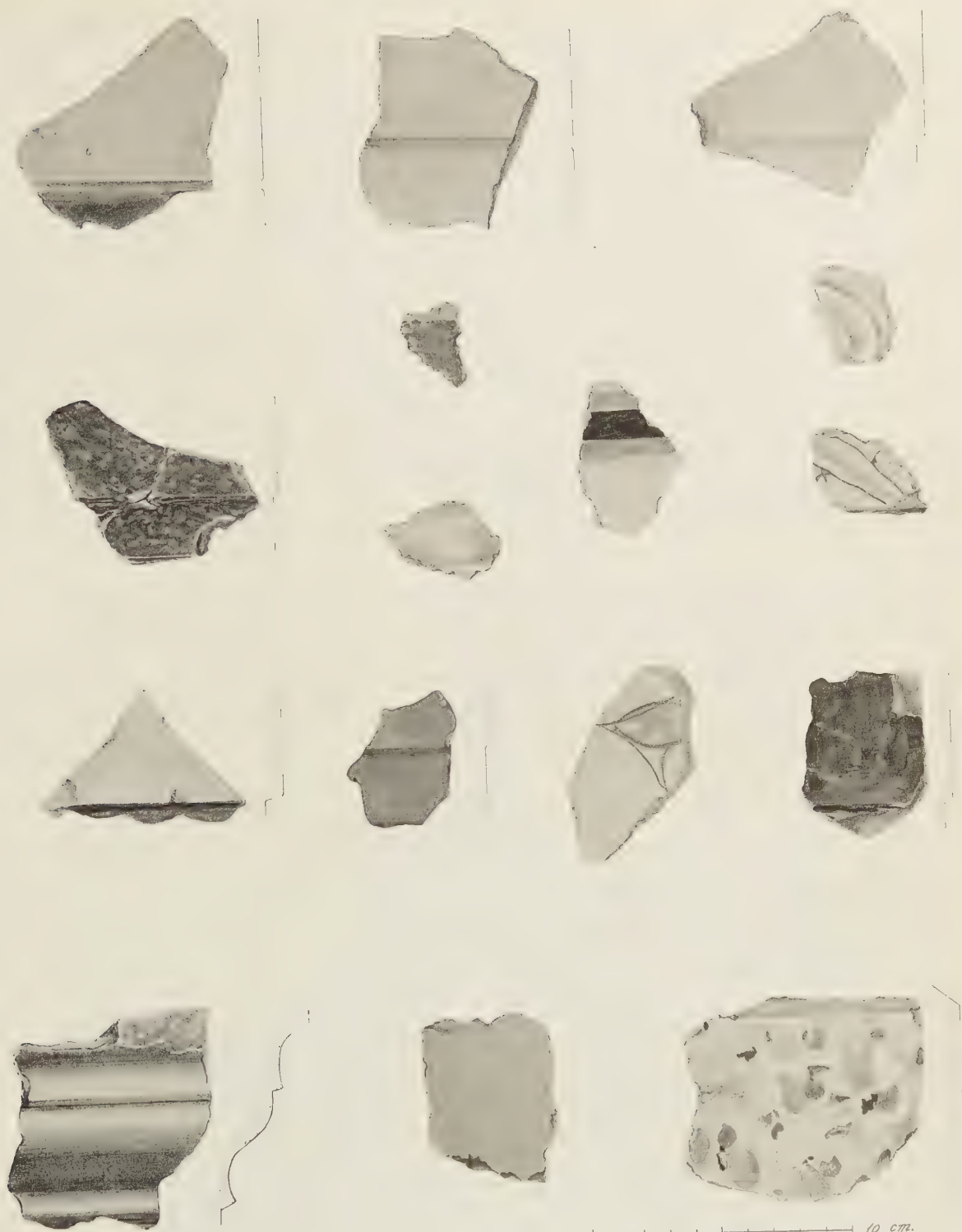


b. Guide Lines in East Foundation of Auditorium

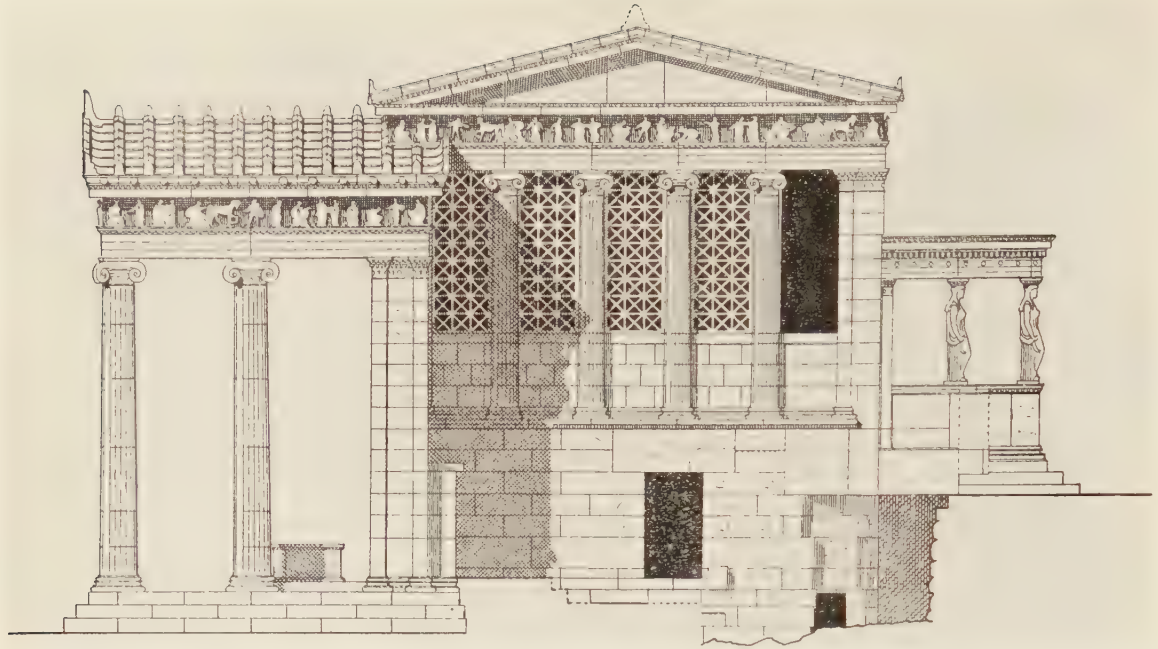


c. Iron Fittings from Debris of Odeion

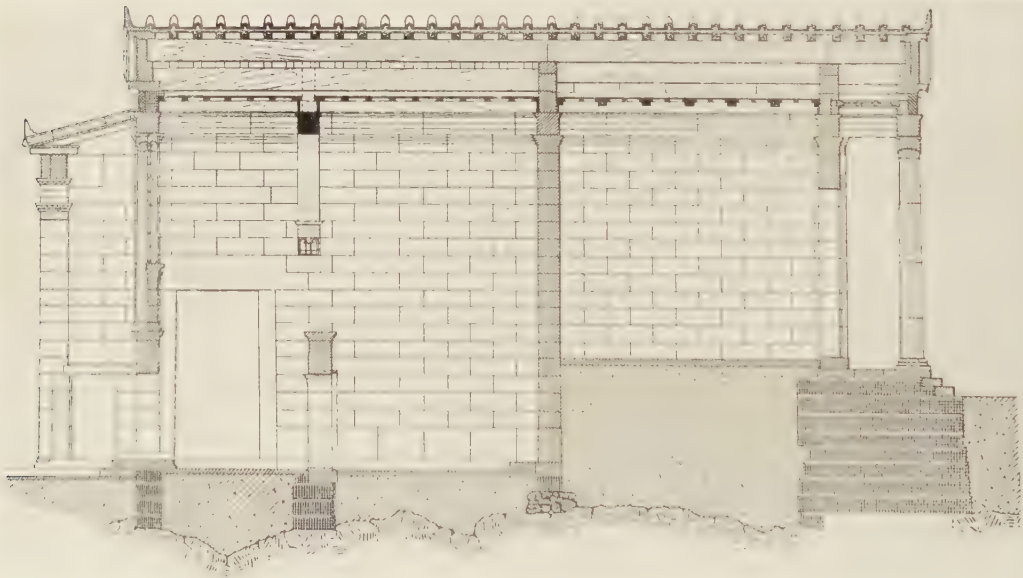




Stucco Fragments Found to North of Odeion



a. West Facade of the Erechtheion (Original Form)  
(Stevens and Paton, *The Erechtheum*, pl. XIII)

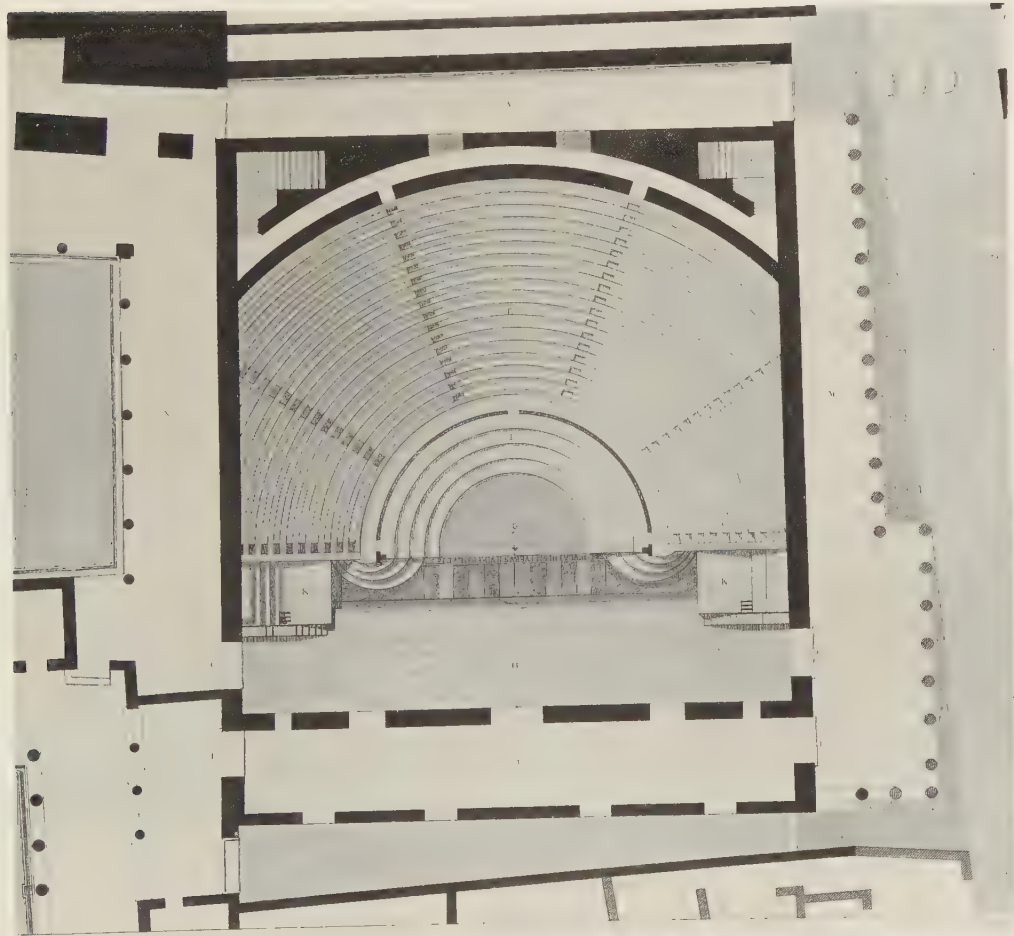


b. Section Looking North through the Erechtheion  
(Stevens and Paton, *The Erechtheum*, pl. XV)

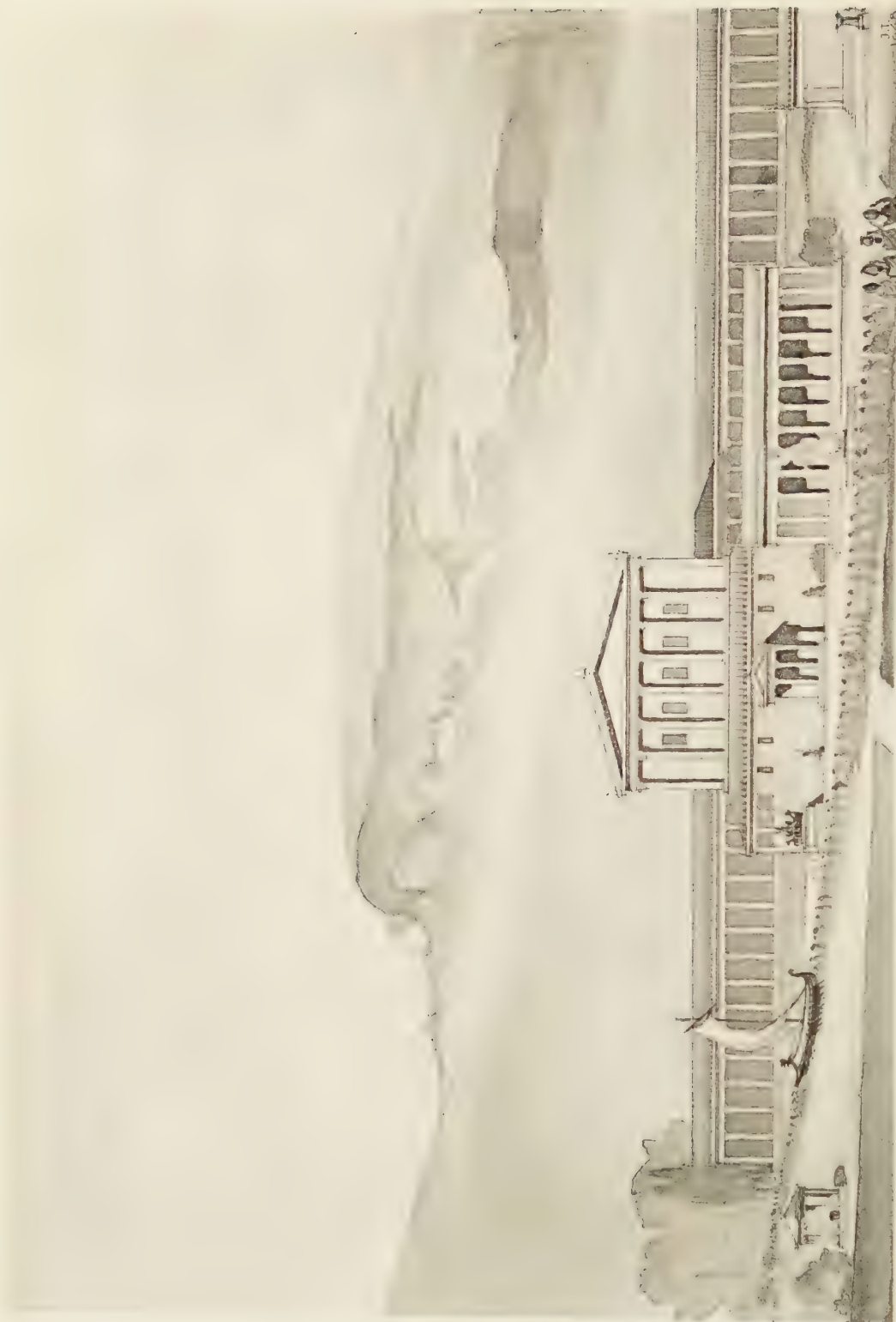




a. Wall Painting from Stabiae  
(*Röm. Mitt.*, XXVI, 1911, pl. VII, 2)

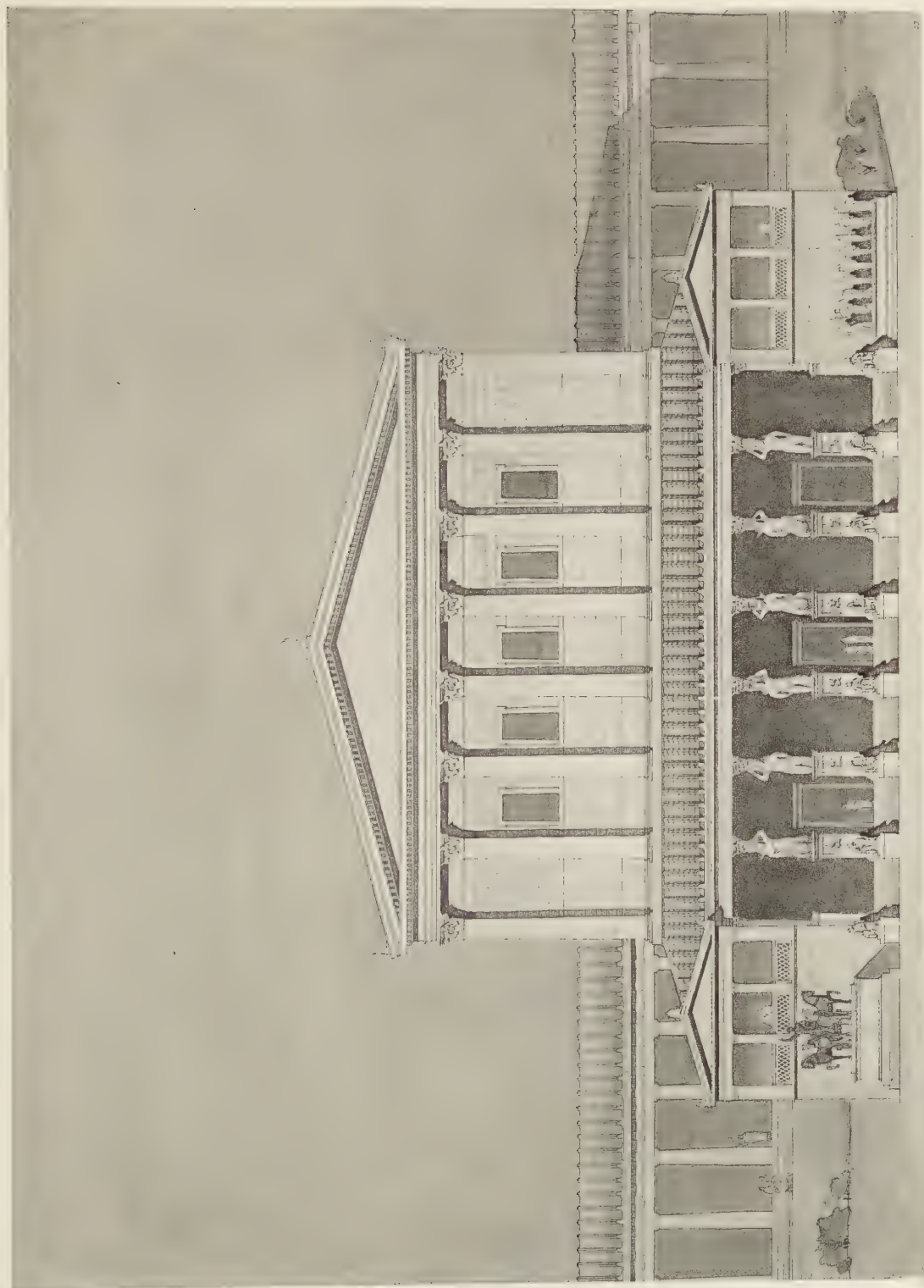


b. Roofed Theatre of Pompeii, Plan  
(Mazois and Gau, *Les Ruines de Pompéi*, IV, pl. XXVIII)



The Odeion in its Setting, Period I, from the North, Restored  
(Immediately to the right of the Odeion is the Temple of Ares)





North Facade of the Odeion, Period II, Restored



Westernmost Triton in Gymnasium Series (Figure and Pedestal)





Westernmost Triton in Gymnasium Series (Figure)



b



a

Westernmost Triton in Gymnasium Series (Bust)





a



b



c

Triton Second from the East in Gymnasium Series



a



b

Triton's Head (S 1214)

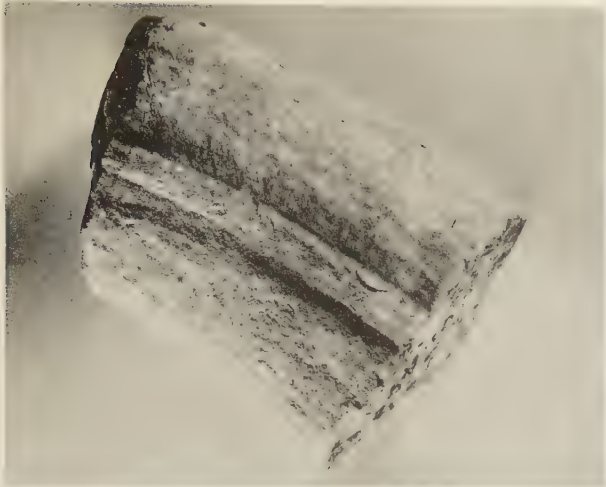




a. Lower Part of a Triton (S 1215)



b. Lower Part of a Triton (S 1216)



c. Triton's Tail (S 1344)



d. Giant's Tail (S 1303)



e. Fragment of a Scaly Creature (S 1217)



f. Giant's Tail (S 1390)



a. Right Hand of a Triton (S 599), Front



b. Right Hand of a Triton (S 599), Back



c. Right Hand of a Triton (S 596), Front



d. Right Hand of a Triton (S 596), Back

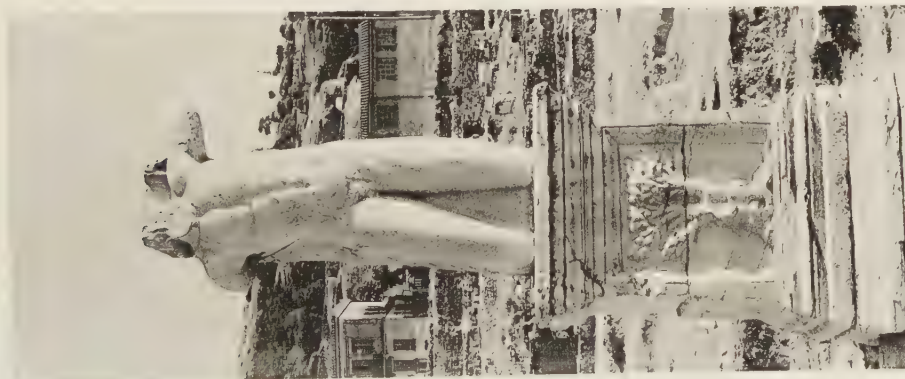




d



c



b



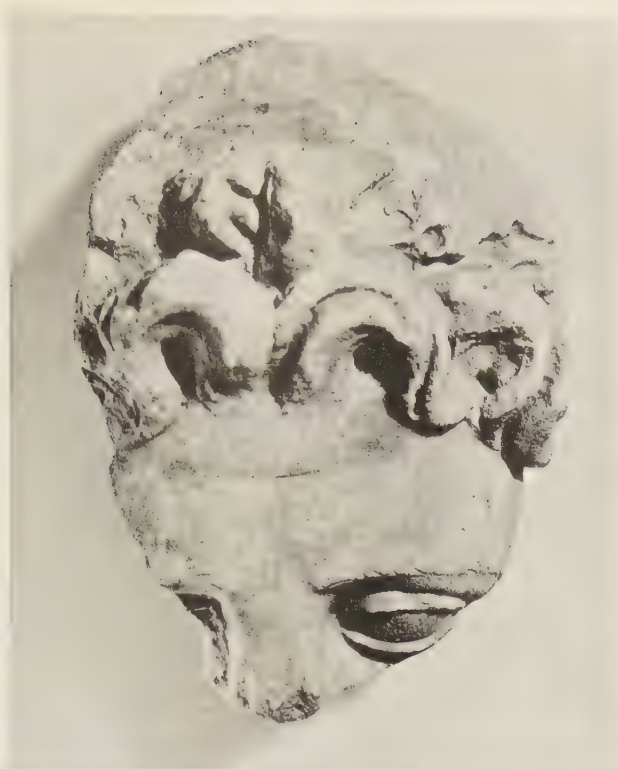
a

Giant in Easternmost Position of Gymnasium Series (Figure and Pedestal)



Giant in Easternmost Position of Gymnasium Series (Figure)





a. Giant's Head (?) (S 1367)



b



c

Left Arm of a Colossal Figure (S 369)



a. Left Hand of a Giant (S 1202), Back



c. Right Hand of a Colossal Figure (S 1221), Back



e. Left Elbow of a Colossal Figure (S 1218)



b. Left Hand of a Giant (S 1202), Front



d. Right Hand of a Colossal Figure (S 1221), Front



f. Forearm of a Colossal Figure (S 1219)





a. Relief Panel on Pedestal of Westernmost Triton



b. Relief Panel on Pedestal of Easternmost Giant





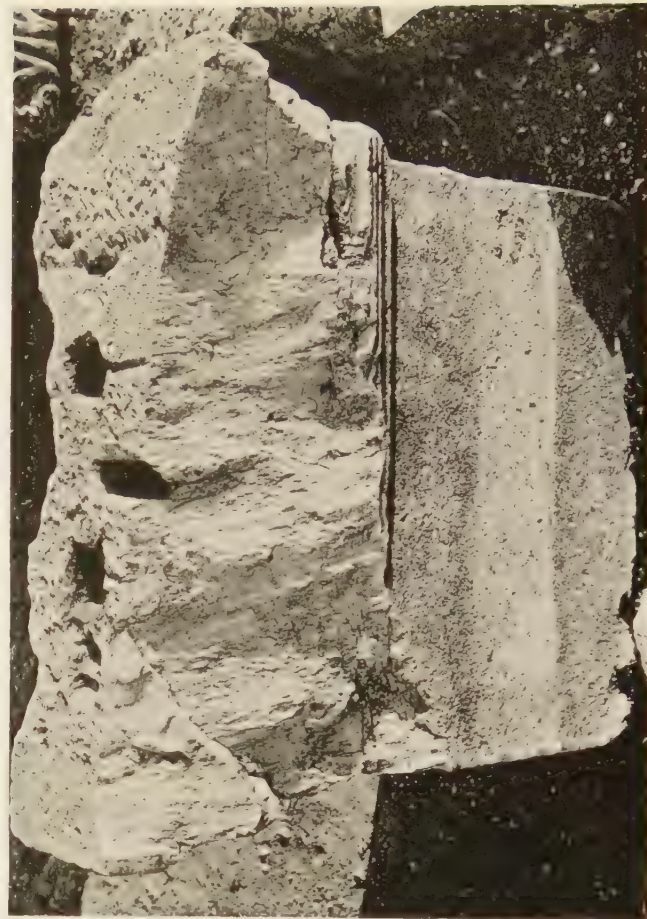
a. Top of Fragmentary Pedestal (A 1176)



c. Fragment of Pedestal with Relief (S 1348)

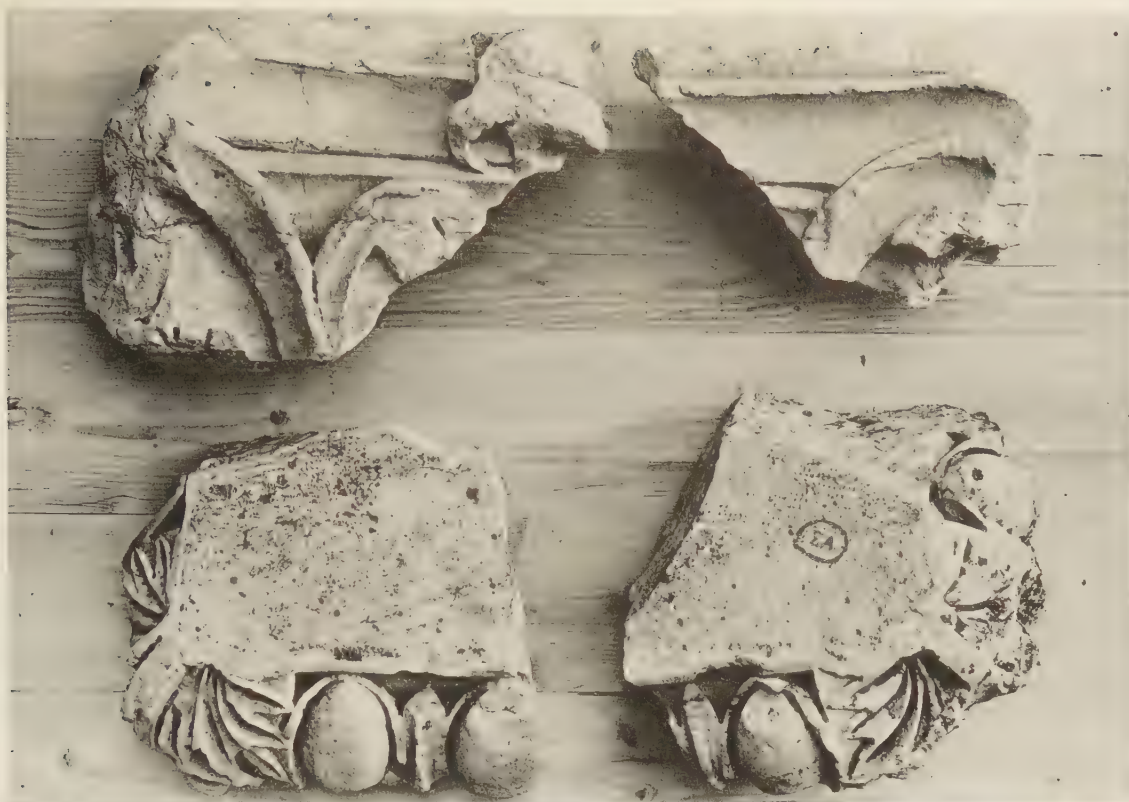


b. Lower Part of Pedestal (A 1175)



d. Upper Block of Pedestal for a Pilaster (A 1177)





a. Fragments of Capitals from Above the Colossal Figures (A 1491)



b. Capital of Pilaster on Arch of Hadrian  
(Stuart and Revett, *Antiquities of Athens*, III, ch. III, pl. VIII)



a. "Carrey's" Drawing of Central Group in Parthenon West Pediment  
(Omont, *Athènes au XVII<sup>e</sup> Siècle*, pl. II)



b. Westernmost Triton in Gymnasium Series (Reversed)



c. Poseidon from Parthenon West Pediment





a. Athena and Poseidon on a Kertsch Hydria  
(*Comptes-rendu*, 1872, pl. I, 1)



b. Hephaistos on the Madrid Puteal  
(*Einzelaufnahme* 1729)



c. Easternmost Giant in the Gymnasium Series



a. Horse Tamers of Monte Cavallo, Heads



b. Horse Tamers of Monte Cavallo





a



b

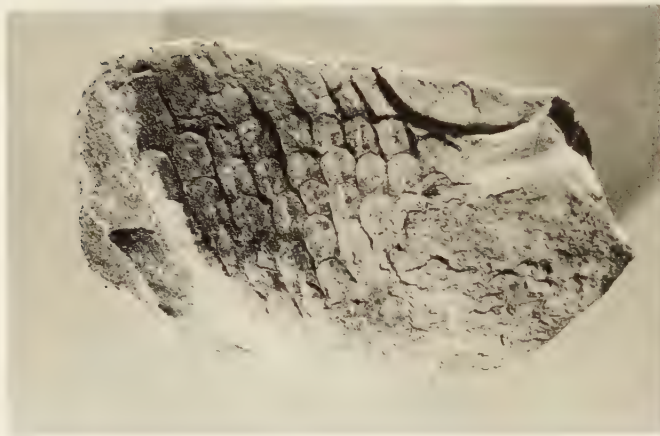
Seated Figure (S 826)



a. Seated Figure (S 930), Right Side

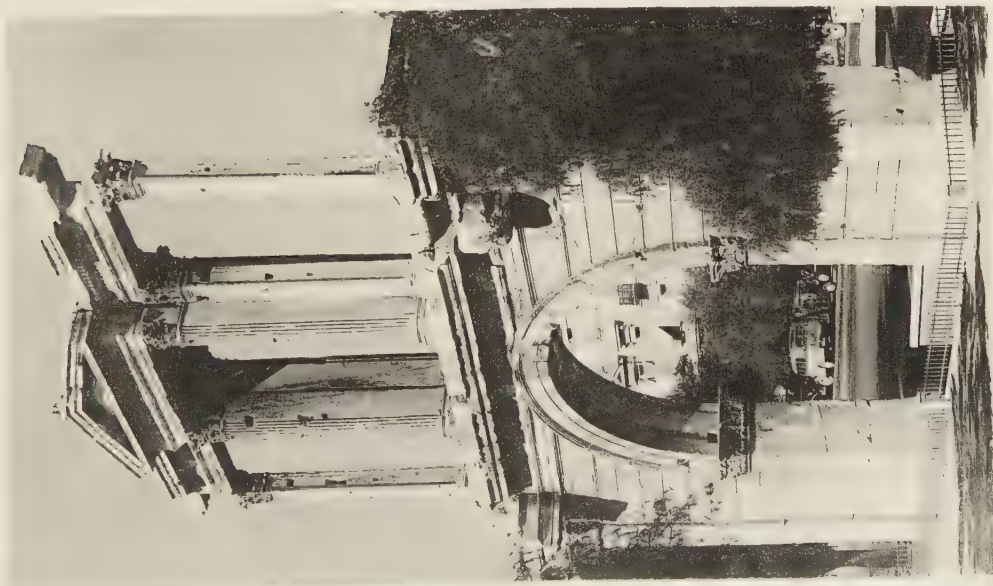


b. Seated Figure (S 930), Front

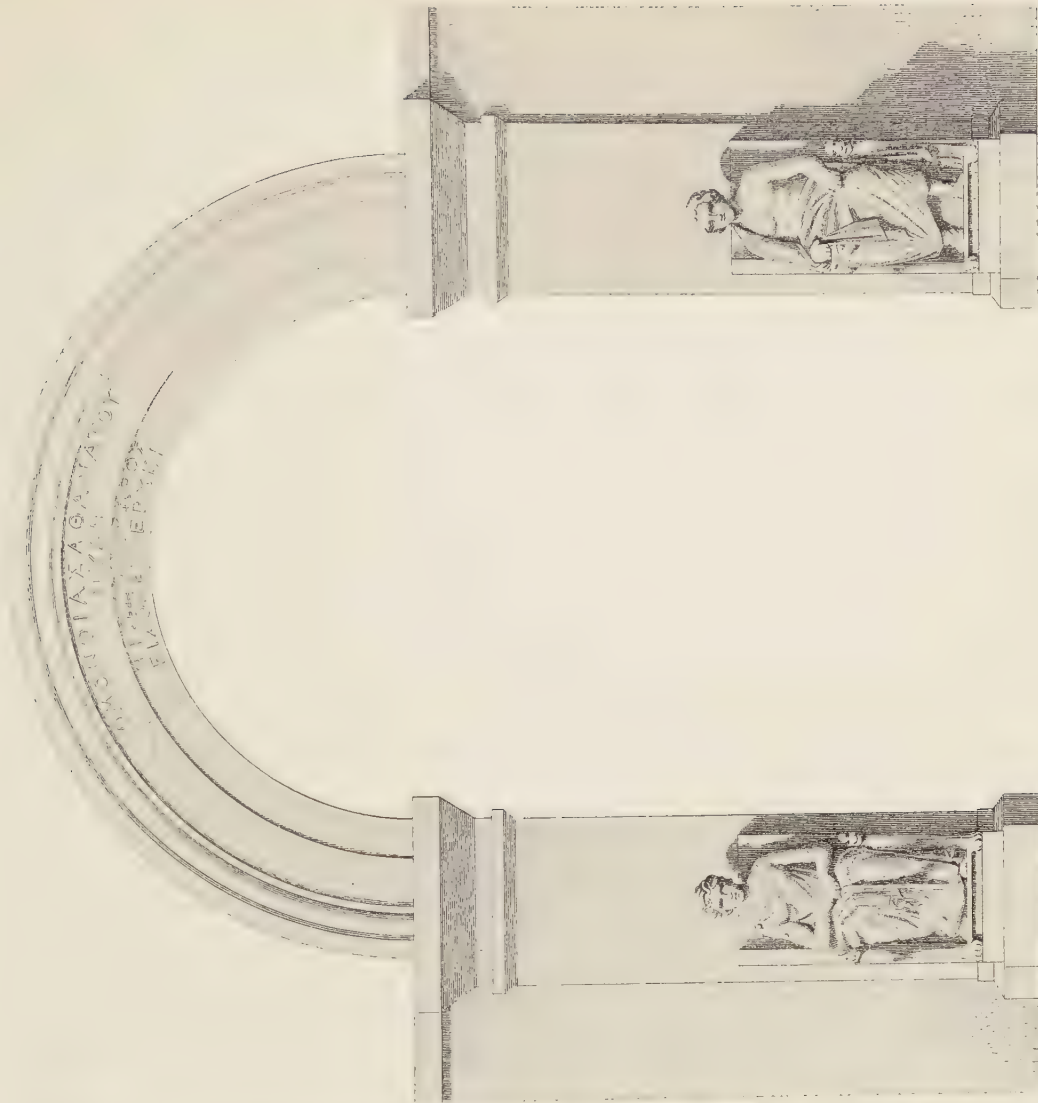


c. Fragment of Marble Chair (S 1304)





a. Arch of Hadrian in Athens



b. "Gateway of Eternal Harmony," at Marathon  
(Le Bas-Reinach, *Voyage Archéologique*, pl. 90)





# SOME REMARKS UPON THE INTERIOR OF THE HEPHAISTEION<sup>1</sup>

INTRODUCTION. I. COLONNADES. II. PEDESTAL OF THE CULT STATUES. III. CULT  
STATUES. IV. CEILING OF THE CELLA. V. WALLS BACK OF THE COLONNADES. VI.  
BONDING OF THE COLONNADES TO THE WALLS.

## INTRODUCTION

DURING the restoration of the eastern portion of the Hephaisteion by Professor Anastasios K. Orlandos in 1936 and 1937,<sup>2</sup> and also during the thorough excavation of the interior of the temple in 1939 by the American School of Classical Studies at Athens,<sup>3</sup> important new discoveries were made. And, still more recently, Professor W. B. Dinsmoor,<sup>4</sup> Professor Oscar Broneer,<sup>5</sup> and Mr. B. H. Hill<sup>6</sup> have published articles which add greatly to our knowledge of the interior. Thus, he who would like to know what the interior originally looked like has a good deal of recent material to consult.

In Professor T. L. Shear's report of 1939 upon the activities of the American School in the Agora of ancient Athens—the report is published in *Hesperia* of 1940—he reproduces a plan of the whole Agora, in which the Hephaisteion is indicated with four columns at the west end of the cella and with seven columns along both the north and south sides of the cella.<sup>7</sup> Also, the pedestal for the cult statues in the cella is drawn in what seems to the writer to be its correct position. Further, Messrs. Dinsmoor, Broneer, and Hill are agreed that within the cella there was a double order of Doric columns, one above the other. There is some discrepancy among these scholars, however, as to the axial unit of the colonnades, as to the location of the cult statues, as to the interpretation of the remains of stucco upon the walls of the interior of the

<sup>1</sup> The writer wishes to express his sincere thanks both to Professor Homer A. Thompson and to Professor Oscar Broneer, not only for their many valuable suggestions as this study progressed, but also for their careful reading of the manuscript. It is fair to these scholars, however, to say that their views do not entirely coincide with the writer's, notably in regard to the stucco on the walls of the interior of the cella.

Mr. Bert H. Hill, too, was most helpful. It is an important asset for the American School that he should be living in Athens.

<sup>2</sup> A. K. Orlandos: 'Αρχαίον τῶν Βυζαντινῶν Μνημείων τῆς Ἑλλάδος, Τόμος Β', 1936, pp. 207-216.

<sup>3</sup> The excavations were supervised by Mrs. Dorothy Burr Thompson.

<sup>4</sup> W. B. Dinsmoor: Observations on the Hephaisteion, *Hesperia*, Supplement V (1940).

<sup>5</sup> O. Broneer: *Hesperia*, XIV, 1945, pp. 246-258.

<sup>6</sup> *Hesperia*, Supplement VIII, pp. 190-208.

<sup>7</sup> *Hesperia*, Vol. IX, 1940, Pl. I. The plan was drawn by Mr. John Travlos, Architect of the Excavations of the American School.

cella, and as to some other matters of less importance. In the present article the writer will try to add a little to what is already known about the interior of the Hephaisteion.

The chief new discoveries of the scholars mentioned in the last paragraph, which help in an architectural restoration of the interior, are, briefly stated, as follows:

1) Poros foundations suitable for the support of columns at the west end of the cella and also along the north and south sides of the cella. The foundations show that the columns at the west were some little distance from the west wall, while the columns along the north and south sides were comparatively near the walls behind them. (That the foundations did not bond into the foundations of the temple itself does not necessarily mean that the foundations which supported the columns and the columns themselves were both an after-thought. For foundations of interior walls, even in the best periods, were as a rule not bonded into the foundations of the exterior walls; as, for example, the foundation of the east cross wall of the Erechtheum; cf. Paton and Stevens, *Erechtheum*, Text, pp. 147-148.)

2) A vertical scratch on the vertical face of the marble course beneath the north orthostate. The scratch gives the north-south axis of the row of columns at the west end of the cella. The distance from the orthostates of the west wall to the scratch is 1.464 m. (cf. Fig. 4).

3) An architrave block of the upper order. The block tells us that the orders were probably Doric; that the axial unit of the double order was 1.553 m.; that the upper diameter of the upper columns approximated 0.40 m.; that there was a course of marble above the architrave. Further, as the architrave block is of Pentelic marble, we may infer that the columns were also of Pentelic marble. The position of the architrave block in relation to the bottom of the orthostate was determinable, thanks to the remarkable preservation of the temple, which is the best preserved of all Greek temples. (The writer's study of the architrave block brought out the fact that the block had not only a fascia along the top of the side toward the wall, but also either a fascia or a set of moldings along the top of the side toward the interior of the cella).

4) Two blocks of dark Eleusinian limestone of the die of the pedestal which supported the cult statues.

The above data, together with information derived from inscriptions and ancient writers, are amply sufficient to make a drawing which will give a very good idea of the original interior of the cella <sup>8</sup> (cf. Fig. 1).

<sup>8</sup> No architrave block over the lower columns has as yet been found. In Fig. 1 the architrave was restored with a molding along the top. It is possible that instead of a molding there was a fascia with guttae below, like the usual treatment of a Doric architrave. But, as there is no evidence for guttae on the architrave block of the upper order, it is possible that the architrave over the lower order had no guttae.



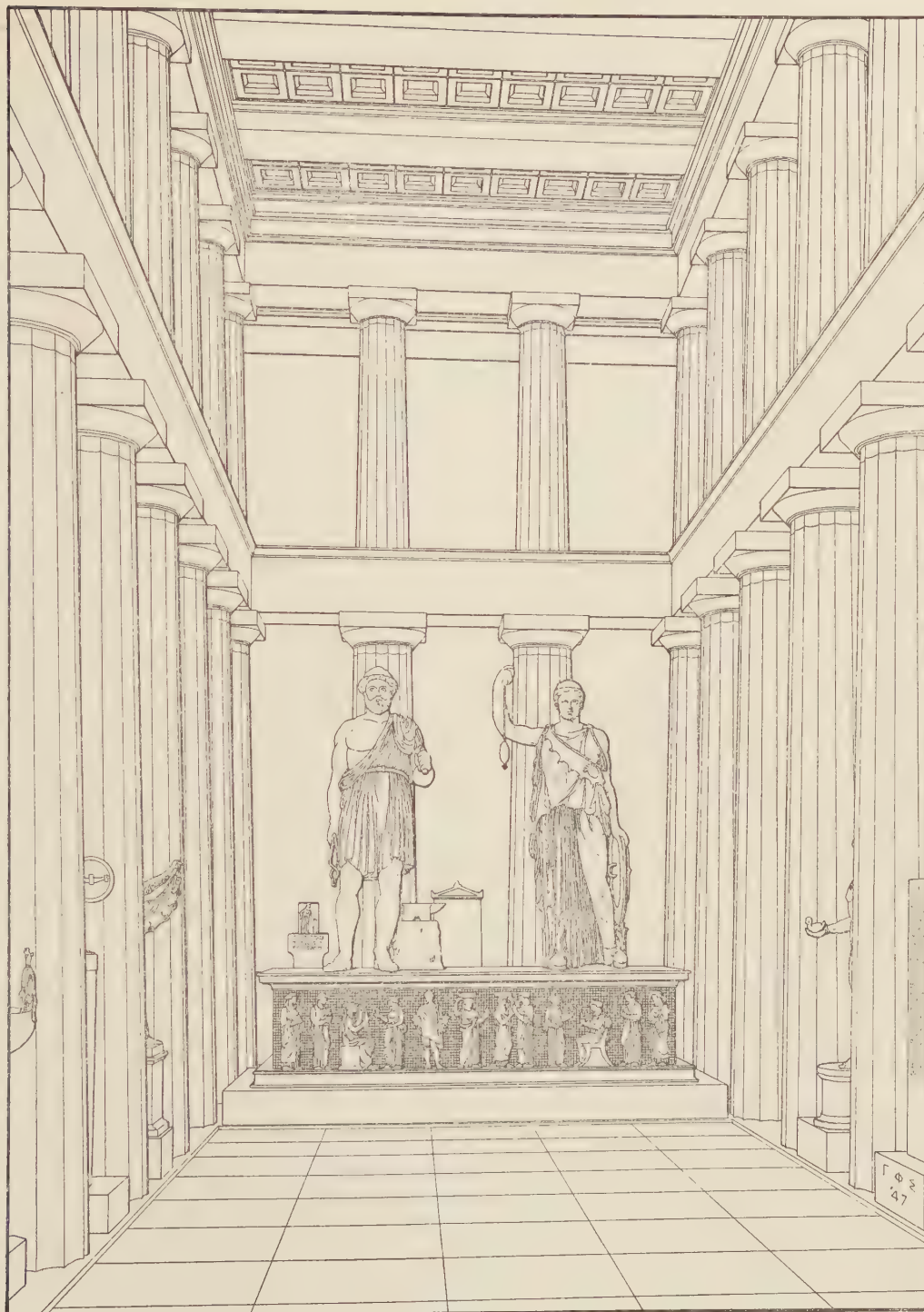


Fig. 1. Perspective of the Interior of the Hephaisteion : Restoration

An excellent way to study an ancient building is to draw restored plans, elevations and sections of it at fairly large scale, as valuable information is sure to escape the notice of the restorer who does not thus carefully go into his problem. Below are some of the most important features which came to light as the drawings needed for Fig. 1 progressed.

## I. COLONNADES

The north-south axis of the colonnade in the western part of the cella is known from the vertical scratch (already referred to) on the north wall of the cella. It is obvious that where the axis given by the scratch crosses the axis of the temple we must place either a column or an intercolumniation (cf. Fig. 2, A). If we place a column on the axis of the temple and then space out the columns to the north and south, using 1.553 m. for the axial unit, the foundations along the north and south sides of the cella are meaningless. But, if we place an intercolumniation on the axis of the temple, the foundations along the north and south sides of the cella are almost exactly what we should expect to find if the corners of the colonnades are turned with a column (or perhaps with a square pier with a side about equal to the diameter of a column; cf. Fig. 6). Fig. 3 shows the relation of the north and south colonnades to their foundations. Proceeding eastward from the corner columns (or piers if preferred) and again using the axial unit of 1.553 m., we find that seven columns can be spaced out (cf. Fig. 2). As a result of such a spacing, the distance between the axes of the most easterly columns and the west face of the east cross wall becomes 1.36 m. (cf. Fig. 4). If pilasters projected 0.07 m. from the east cross wall, then the free space between the easterly columns and their pilasters is equal to the free space between the columns themselves, provided we use for the calculations the column diameters which are halfway between the bottom of the orthostates and the bottom of that architrave which is immediately beneath the ceiling (cf. Fig. 4). Pilasters occur in the cella of the Parthenon,<sup>9</sup> and also in the cella of the temple of Neptune at Paestum.<sup>10</sup>

A-B, Fig. 3, projects about 0.113 m. beyond the face of the column, a projection which in the case of the Doric order is commonly only 0.05 m. to 0.06 m. Perhaps the anomaly can be explained in one of the three following ways:

1) Running along the outside of the cella is a vigorous molding below the orthostates. The molding is carried around the four antae of the temple—that is the antae have bases, an unusual feature for the Greek Doric order, but not unique.<sup>11</sup> If the pilasters in the cella also had bases, the projection of the line A-B, Fig. 3,

<sup>9</sup> Penrose: *Principles of Athenian Architecture*, Plate 4.

<sup>10</sup> Koldewey und Puchstein: *Die Griechischen Tempel in Unter-Italien und Sicilien*, Taf. 4.

<sup>11</sup> A. K. Orlandos: 'Αρχ. 'Εφ., 1917, pp. 213 and 222.



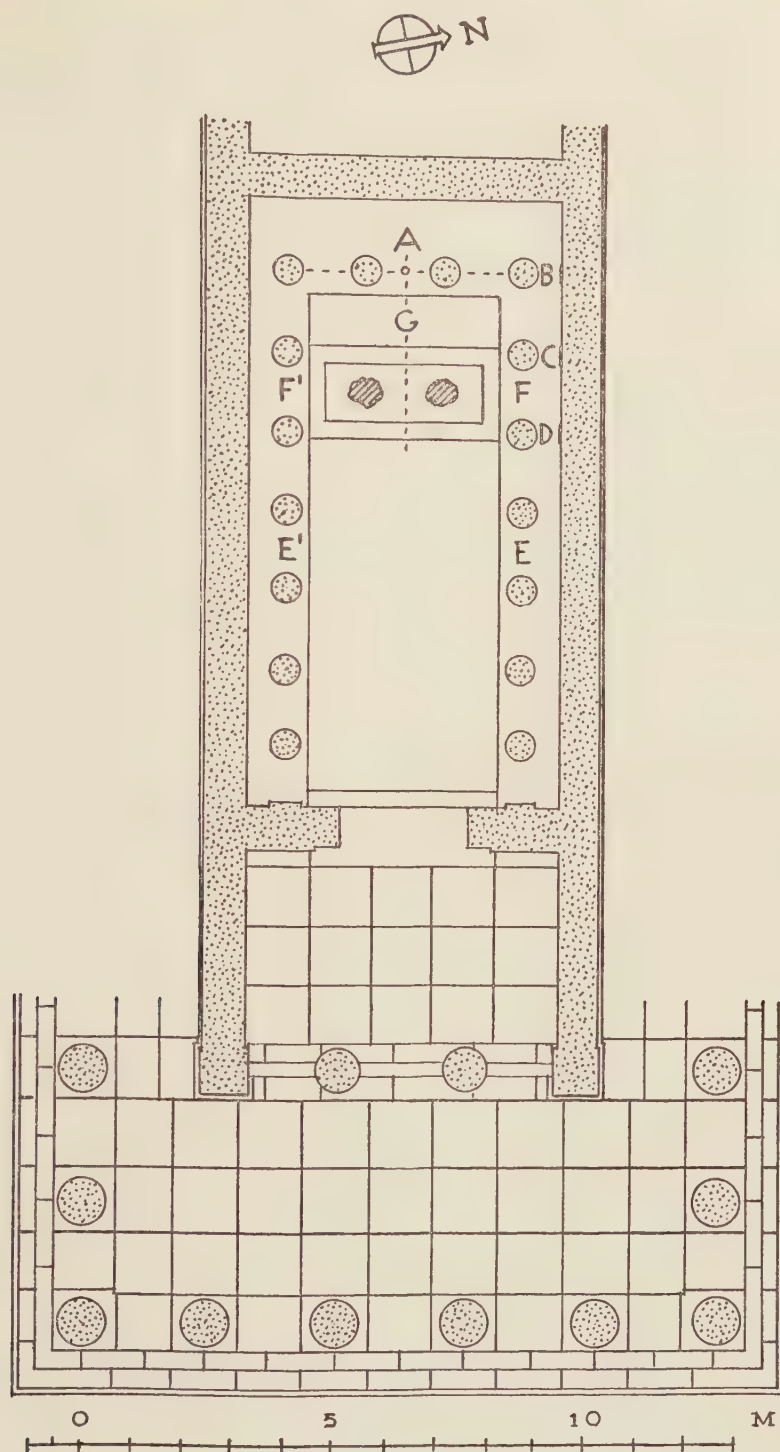


Fig. 2. Plan of the Interior of the Hephaisteion : Restored

becomes understandable—A-B must project far enough beyond the side face of the pilaster to carry the base of the pilaster properly. A suggestion for such a base is indicated with dotted lines in Fig. 3, on the right. (The pilasters in the cella of the Parthenon had no molded bases, but neither did the outside wall of the cella.)

2) The unusually large projection of A-B, Fig. 3, beyond the face of the columns may also mean that the columns themselves had bases. There is a well-known Doric column with a molded base in the portico of the temple at Cori.<sup>21</sup> The suggestion for

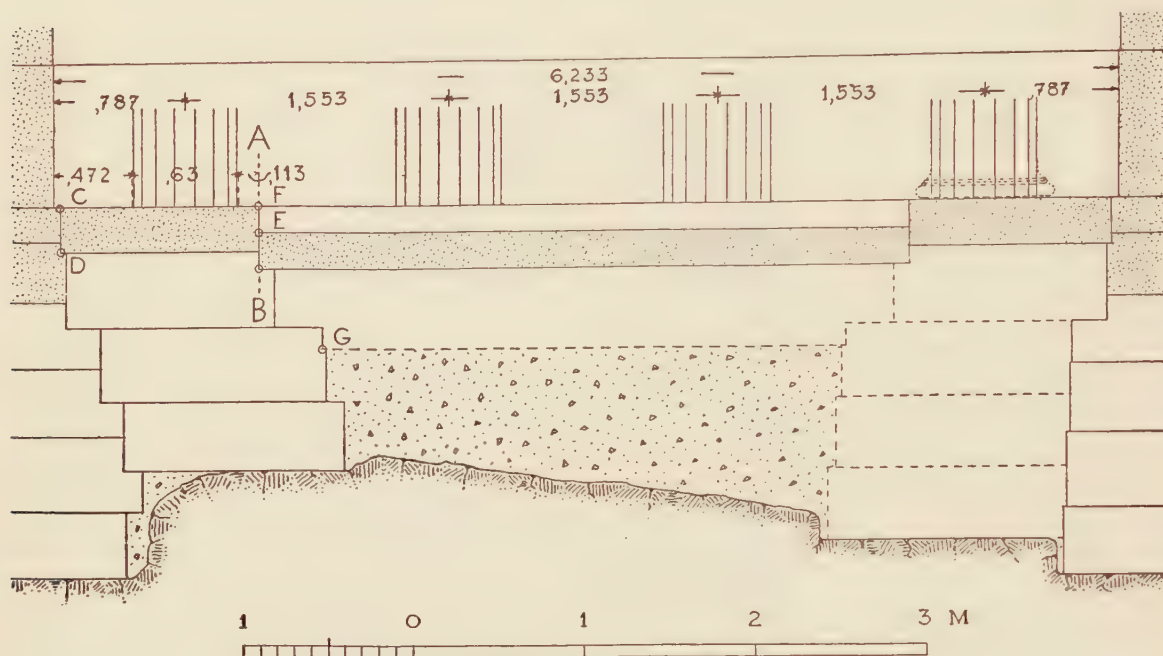


Fig. 3. Section through the Lower Part of the Cella of the Hephaisteion, Looking West : Restored

a pilaster base in the Hephaisteion as shown in Fig. 3, on the right, may also serve as a suggestion for a column base, for the bottom width of the pilaster nearly equalled the bottom diameter of the column if we follow what was done in the Parthenon.

3) If the lower columns of the interior of the Hephaisteion had bases, as suggested in the last paragraph, there is a possibility that the columns were not of the Doric order, but of the Ionic order or even of the Corinthian order. Further, the height of the fascia (possibly a set of moldings) along the top of the only preserved architrave block of the interior—the fascia toward the interior of the temple—may indicate that the upper columns of the interior were also not of the Doric order, for the fascia is too broad for the fascia of a Doric architrave of the height of the pre-

<sup>21</sup> *Fragments d'Architecture Antique*, Vol. I, Pl. 35.



served architrave block—the height of the fascia (0.097 m.) is about one fourth the height of the preserved architrave block (0.409 m.) instead of about one eleventh, the usual proportion for a Greek Doric architrave. And there are no traces of guttae beneath the fascia of either side of the preserved architrave block of the Hephaisteion to tell us positively that the accompanying capitals were of the Doric order. As a rule, a plane architrave is a good indication of a Doric order. But the fact that the Hephaisteion architrave had no fasciae does not necessarily mean that there were Doric capitals beneath that architrave. Did not the Ionic order of the interior of the temple at Bassae have a plane architrave (Anderson, Spiers, Dinsmoor, *Architecture of Ancient Greece*, Pl. XXXII)? For the above reasons it is possible that the upper columns were not of the Doric order. Moreover, could they have been piers, not columns? There is a feature not shown in Fig. 4, which gives us a little information about the capital beneath the preserved architrave block; the feature is an unpolished bearing surface on the under side of the architrave at its east end—this unpolished surface indicates that the abacus of the capital of the support below the architrave block was probably square in plan, with a side of *ca.* 0.57 m., which is quite in keeping for the upper Doric columns shown in figure 4. And from that same figure it will be observed that two Doric orders, one over the other, go very well together. But, if the lower order was Ionic or Corinthian, upper supports of Doric columns would hardly be permissible. Moreover, the trace of the abacus on the under side of the preserved architrave block tells us that the abacus is too big for either Ionic or Corinthian upper columns. With a little study, however, we find that upper supports which were square in plan can be made to fulfil the necessary conditions. Such piers might have been plane or panelled, or decorated with 1) ornament, 2) lightly projecting pilasters of the Ionic or Corinthian order (facing the cella), 3) sculptural figures, as in the well known case of the “Incantada” at Salonica (cf. Stuart and Revett, *The Antiquities of Athens*, Vol. III, chap. IX). In this connection we may point out that both Ionic and Corinthian columns are to be found in the interior of Doric temples: the temple at Bassae, which was fairly contemporary with the Hephaisteion, is an example of the former; the Tholos at Epidaurus, which was erected about a hundred years after the Hephaisteion was built, is an example of the latter.

At the moment, the chances favor an all Doric interior (cf. Figs. 1 and 4). But there is still a great deal of excavating to be done in the ancient Agora of Athens. Perhaps fragments will some day be found which will solve the difficulties of the interior of the Hephaisteion.

## II. PEDESTAL OF THE CULT STATUES

Where was the level of the floor upon which the pedestal of the cult statues rested? We know the distance C-D, Fig. 3; it is 0.265 m. And we know the position

of B (Fig. 3). Make B-E equal to the thickness of the pavement in the peristyle, namely, 0.21 m.—in the Parthenon the thickness of the pavement in the peristyle is the same as that of the pavement in the cella. We thus have a thicker course beneath the interior columns of the Hephaisteion (where a thick course is needed on account of the superincumbent weight) than we have for the pavement in the cella—this again is what was done in the Parthenon. E-F becomes 0.16 m., considerably higher than in the case of the Parthenon, where the step is 0.04 m. high. But the two interiors were different. In the Parthenon the distance between the columns and the side walls was so great that large numbers of people must have circulated in the aisles; and to reach the aisles they must have passed over the low step which marked off the nave from the aisles. A step with a height of 0.04 m. really amounted to no step. People would have tripped over a step as high as 0.16 m., especially when we remember that the interior of the Parthenon was none too well lighted. In the case of the Hephaisteion, on the other hand, there was no need for a very low step, as large numbers of people were not expected to pass behind the columns, as we shall see a little further on in this article. Moreover, the above figures make the pavement of the cella of the Hephaisteion 0.04 m. above the pavement of the pronaos—this is almost similar to the difference between the corresponding levels in the Parthenon (cf. Fig. 4).

The thickness of the poros course below the pavement in front of the cult statues is determined by the cutting at G, Fig. 3.

The writer believes that the pavement behind the cult statues (cf. Fig. 2, G, and Fig. 4), was raised somewhat, so that the step became a low one, like that of the Parthenon. The area G is so small that to sink it 0.16 m. would make it look like a hole in the pavement.

Beneath the pavement at G, Fig. 2, and also under the pedestal of the cult statues a thin poros course was probably laid, as was done elsewhere in the temple in places of small extent (cf. Dinsmoor's "Observations, etc.," Fig. 11, sections A-A and C-C).

In passing, we may remark that the sill of the entrance door projected an unusual amount into the pronaos (cf. Fig. 4),—an indication that the door may have been given an architectural treatment which stood out vigorously from the wall behind it.

From the two preserved blocks of the die of the pedestal of the cult statues Professor Dinsmoor works out a length of 3.086 m. and a width of 1.303 m. for the die as a whole, figures which are undoubtedly very accurate. The pedestal together with its base moldings was thus so wide that the ancient Greek who wanted to go around the pedestal was obliged to pass back of the columns on either the north side or the south side of the pedestal (cf. Figs. 1, 2, and 6). The distance between the columns and the orthostates behind them is, at the top of the orthostates, *ca.* 0.48 m. (cf. Fig. 3). The space is sufficient for persons to pass, but, in doing so, most of them would rub against the upper part of the orthostates (which are finished as exposed faces), for the top of the orthostates is 0.845 m., or about the height of a man's hips, above



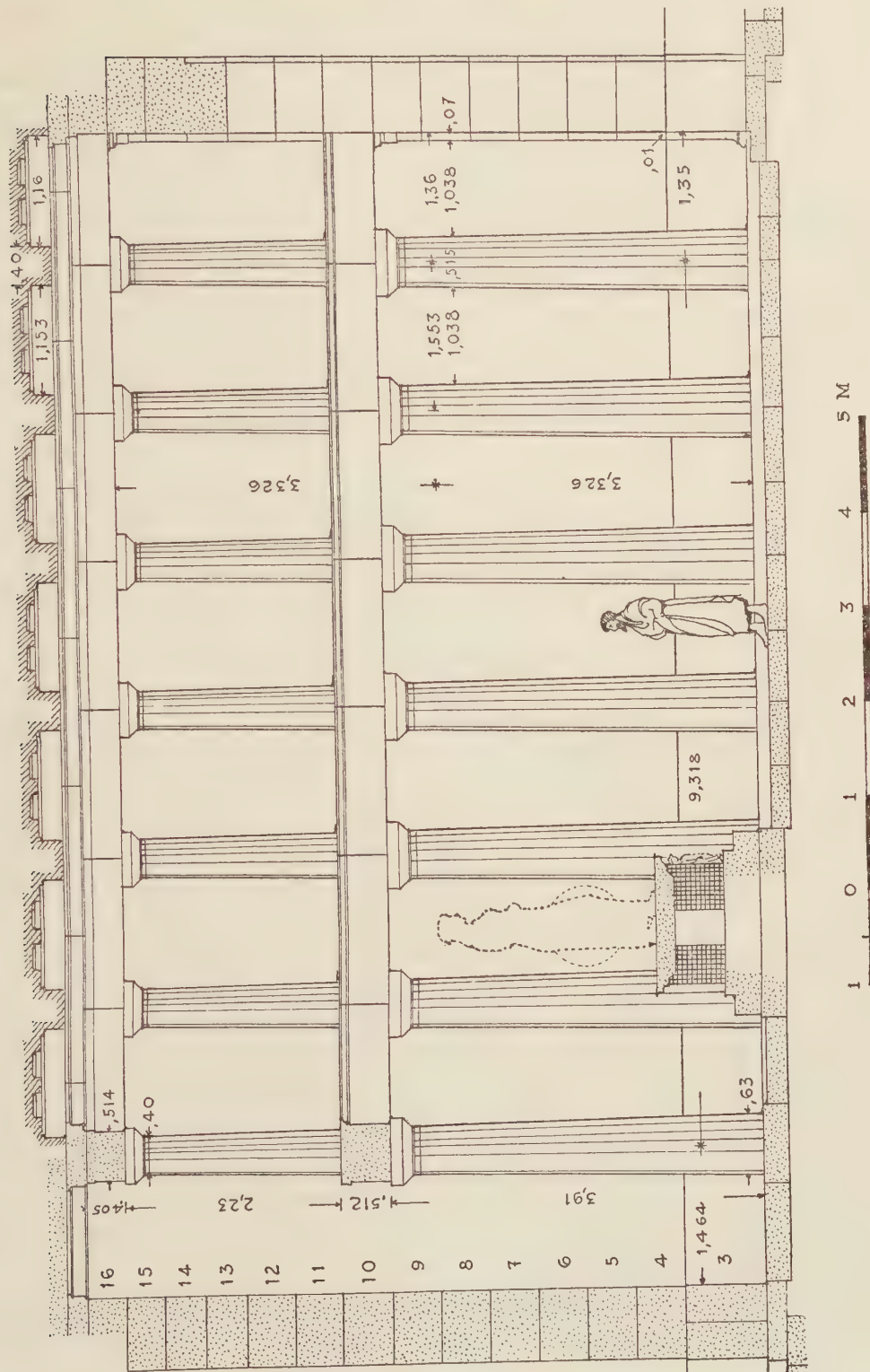


Fig. 4. Section through the Cella of the Hephaisteion, Looking North: Restored

the base of the wall. We might hope that even today the upper part of the orthostates would be particularly well polished behind those columns back of which the public circulated; and, indeed, this is so at B, C, and D, Fig. 2. (The corresponding places on the south wall of the cella are not in a good state of preservation, but portions of well polished surfaces are visible there, also.) If we had no architrave block to give us the axial unit of the colonnades, the polished surfaces at B, C, and D would tell us the axial unit fairly accurately.

The spaces E and E' between the columns (cf. Fig. 2) and the similar spaces eastward were excellent niches for votive monuments. We would not expect to find that the public circulated behind the columns in this part of the cella, for at least some of the votive monuments must have practically filled the niches in which they stood and thus have prevented circulation behind the columns. And nowhere behind these columns is the upper part of the orthostates in so highly a polished condition as at B, C, and D.

Professor Dinsmoor has shown from the five dowel cuttings in the exposed vertical face of the block from the east face of the die of the pedestal of the cult statues that objects of some kind, probably twelve in number, were doweled to that face, and, further, from the lack of dowel cuttings in the exposed vertical face of the die block from the rear of the pedestal that objects were not attached to the back of the pedestal (cf. Fig. 6). In *I. G.*, I<sup>2</sup>, 371 mention is made of twelve forked dowels for the pedestal (cf. Fig. 5). The forked dowels are in addition to the ordinary dowels needed for the bottom of the blocks of the pedestal. Some sort of forked dowel was necessary to prevent the objects attached to the exposed face of the die from being pulled off. The dowel cuttings for the forked dowels have a larger area at the bottom of the dowel cuttings than at the face of the die. Thus, after the dowel was leaded, both it and its lead were well anchored. Twelve objects were attached to the front by the twelve forked dowels of the inscription, no objects to the back—quite clearly there were no objects attached to the sides of the die (the blocks of the sides are missing): in other words, only the front of the pedestal was decorated.

A very probable supposition as to the material of the attached objects is that they were of white marble, as no other material would stand out so well against a dark Eleusinian background. It is more than likely that the applied objects were figures, and that, taken collectively, they formed a frieze representing some festival of the craftsmen of Athens, for both Hephaistos and Athena, whose statues were supported by the pedestal, were the patrons of craftsmen. A frieze of small figures of white marble, attached to a background of dark Eleusinian limestone, at once reminds us of the well-known friezes of the Erechtheum.<sup>13</sup> That one frieze influenced the other

<sup>13</sup> If originally there were no marble figures attached to the frieze under the west gable of the Erechtheum, as seems possible (cf. Paton and Stevens, *The Erechtheum*, Text, p. 240), then we have a further slight resemblance between the frieze of the pedestal in the Hephaisteion and the frieze of the Erechtheum.



frieze is impossible to say, for the pedestal in the Hephaisteion, dated to 421-15 B. C. by inscription *I. G.*, I<sup>2</sup>, 370/371, is about contemporary with the friezes of the Erechtheum. (The Erechtheum building inscription would make the Erechtheum friezes *ca.* five years later than the frieze in the Hephaisteion).

Professor Dinsmoor remarks (cf. "Observations, etc.," p. 108), that, on the analogy of bases with dark dies and dark upper members in the Temple of Zeus at Olympia, in the Tholos at Delphi, and in the Temple of the Athenians on Delos, the

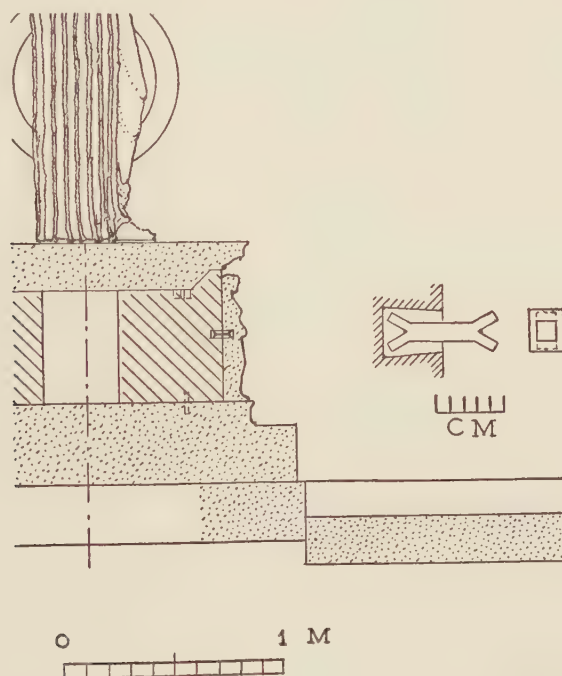


Fig. 5. Section through the Pedestal of the Cult Statues, Looking North : Restored. Detail of Forked Dowel (Restored) for Attachment of Marble Figure

member above our dark die was probably dark. But he goes on to say that the members below the dark dies at the above quoted places were dark in the two first cases, light in the last case. That is, the color for the members was not rigidly adhered to. It was probably selected to harmonize with the color scheme of the interior of the temples, with the decoration, if any, of the pedestals, and also with the color of the statues supported by the bases, for the statues might be of wood (painted, gilded, or draped), of various colored marbles, of bronze (sometimes gilded), of gold and ivory. In the case of the Hephaisteion we favor white members (probably of Pentelic marble) both above and below the dark die, for the moldings of these members should be fine in scale to go with the delicate carving of the small

figures attached to the face of the die, and fine scale moldings cannot be cut satisfactorily in Eleusinian stone: the moldings should also be light in color to go with the white marble figures attached to the die. That only a portion of the thickness of the crowning member of the pedestal was visible is clearly evident, for the top of the die is cut with a rabbet, as shown in Figure 5. In this way the crowning member was strong enough to carry the heavy cult statues, and yet but a portion of its thickness was visible. If the whole thickness of the top member had been visible, it would have seemed too clumsy for the delicate figures of the frieze. On similar grounds, a plea may be advanced for a fine scale treatment of a white member immediately below the die (cf. Figs. 1 and 5). We may add that there was a delicate treatment of Pentelic marble directly above and below the frieze figures of the Erechtheum.

### III. CULT STATUES

Pausanias tells us that in the temple were two statues standing side by side: one of Hephaistos, the other of Athena.<sup>14</sup> From another source we seem to learn that the statues were of bronze.<sup>15</sup> Bronze is an appropriate material in this case, for the temple stood in the district of the foundries. The bits of castings and the fragments of molds found in 1939 within the peribolos of the Hephaisteion are almost certainly to be connected with the cult statues (cf. Dinsmoor, "Observations, etc.," p. 109). The casters of the district would have been likely to vote, rather strenuously, against an attempt to make the statues in marble.

The large size of the pedestal and the thickness of the member upon which the cult statues rested indicate that the statues were large—undoubtedly larger than life, to give them dignity. The Themis of Rhamnus, which is 2.25 m. high, is a fairly good parallel. Let us make our Athena higher, say 2.35 m., because the cella of the Hephaisteion is larger and loftier than the cella in which the Themis stood. And, if we give to Hephaistos a somewhat greater height than to Athena, say 2.45 m., we shall be probably near the truth. But the statues may have been bigger—certainly not smaller. When the fragments of the molds mentioned above, numbering about one hundred and fifty, are eventually put together, it may be possible to determine the heights more accurately.

A group of two figures standing on a common pedestal may be considered as two separate statues with their bases brought into contact with each other. Let us suppose that the die of the pedestal is cut into two equal blocks, and that each block supports a statue, the center of gravity of each statue being vertically over the center of its corresponding block (Fig. 6). The distance from the axis of the temple to the center of gravity of either statue becomes 0.772 m., which is almost exactly the distance

<sup>14</sup> Pausanias, I, 14, 6.

<sup>15</sup> J. G. Frazer, *Pausanias's Description of Greece*, Vol. II, p. 127.



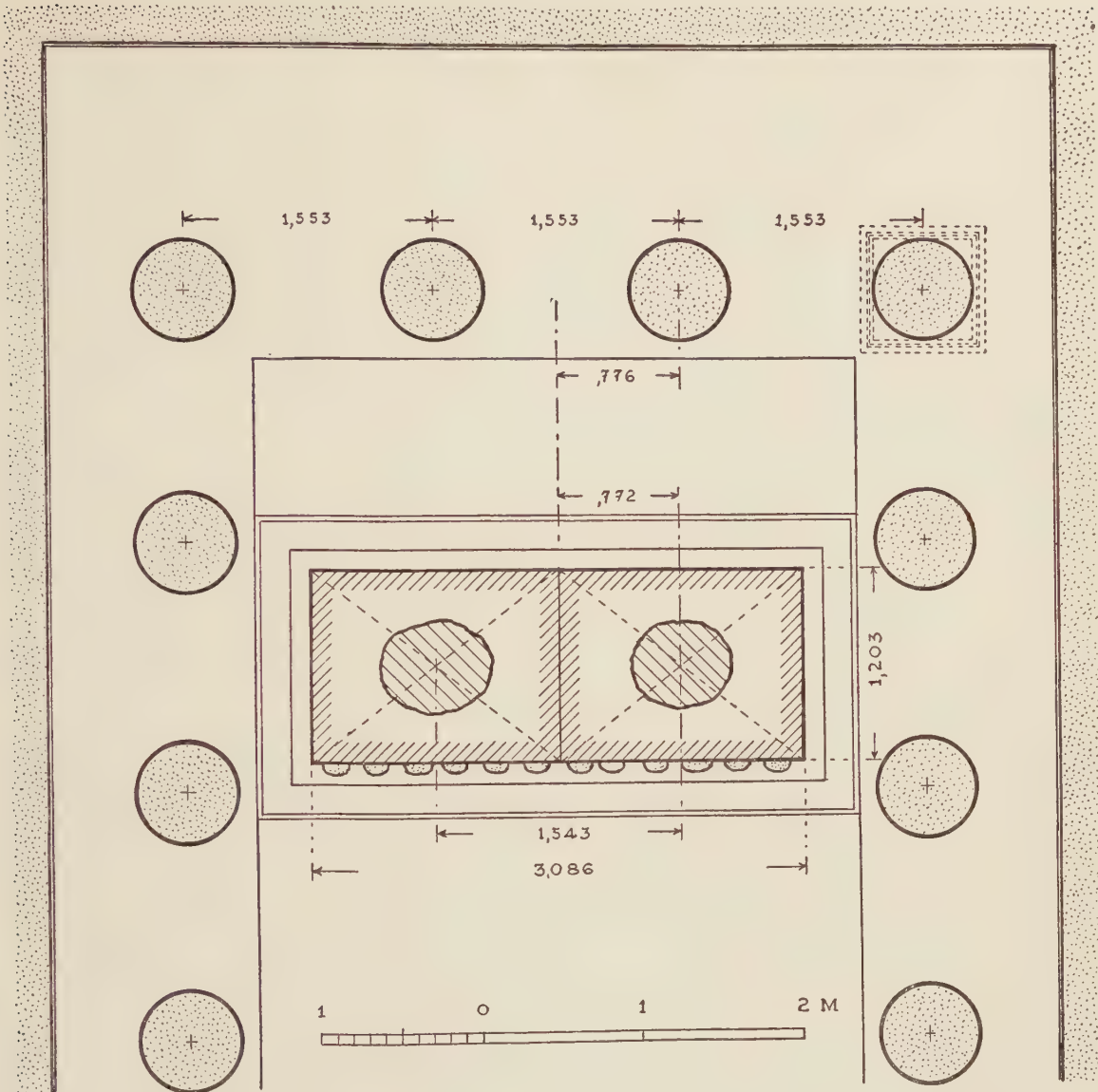


Fig. 6. Plan of the Pedestal of the Cult Statues : Restored

from the axis of the temple to the axes of the nearest columns—there is only 0.004 m. difference (cf. Fig. 6). In other words, the statues were, for all intents and purposes, placed on the axes of the columns behind them. Statues and columns thus had an orderly arrangement in regard to each other. This orderly arrangement, please note, is an indication that 1.553 m. is the correct axial unit for the colonnade behind the statues. It is not likely that the statues would be placed close to the columns behind

them, for then the backs of the statues could not be properly seen. There can be little doubt but that the sculptor of the statues would have preferred to have the statues placed as shown in Fig. 2, where there is ample space for a large number of people to admire the statues from the front, and where the north and south sides of the group could be seen from positions F and F' (Fig. 2) and the backs of the statues from position G (Fig. 2). The chryselephantine statue of Athena in the Parthenon was similarly placed in its cella.<sup>16</sup>

Hephaistos is often represented in ancient art with a conical cap on his head, bearded, dressed in a simple tunic falling to his knees, and wearing the belt of a workman. He usually carries a staff because of his lameness. His attributes are the anvil, the hammer, and the tongs. A. Furtwängler believed that a marble torso in Cassel and a head in the Vatican were copied from our Hephaistos.<sup>17</sup> And his suppositions seem plausible.

We are somewhat better off for an idea of what the Athena looked like. There are five copies of an Athena, which on stylistic grounds point to a Greek original of the late fifth century B. C. The very fact that there are five copies is indicative of the importance of the original. E. Reisch suggests, with a good deal of probability, that the original of the five copies was the Athena in the Hephaisteion.<sup>18</sup> The five copies which he reproduced differ somewhat from each other, as we should expect to find in the case of copies. Three are represented with no shield, and among these three is by far the best executed of the copies—the Athena of the Chiaramonte Museum (see Reisch's publication, plate III). One copy (cf. Reisch's figure 33)—in the museum at Cherchell—has an acanthus plant at the side of the left foot; and the plant supported a shield, for there is a bit of marble projecting from the left side of the left leg just above the knee, which is, certainly, part of the strap near the center of the inside of the shield—the strap through which the person who carries the shield would thrust his arm. This copy combines all the data given in *I. G.*, I<sup>2</sup>, 371, the inscription which deals with the cult statues at some length. (The inscription mentions a shield with a

<sup>16</sup> To the features in the cella of the Hephaisteion, whose counterparts are to be found in the Parthenon—the double order of Doric columns, the possible pilasters, and the probable position of the pedestal of the cult statues—may be added those of the grilles of the pronaos and the opisthodomus of the Hephaisteion. Indeed, in both temples there are clear indications of wooden lintels just under the capitals of the columns; of wooden jambs; of bumpers to prevent the valves of the grilles from flapping about in the wind; of the fact that only the lower portions of the grilles opened; of marble sills, slightly wedge shaped, slipped into place from the rear after the columns were up. Part of the base moldings of the antae of the Hephaisteion had to be cut off flush with the face of the antae before the adjacent sill could be slipped into place—a difficulty not encountered in the Parthenon, because the antae had no base moldings.

<sup>17</sup> A. Furtwängler: *Meisterwerke der Griechischen Plastik*, Fig. 22, p. 120.

<sup>18</sup> E. Reisch: *Jahreshefte*, I, 1898, pp. 55-93. The writer is grateful to Professor Homer A. Thompson for this reference. Compare, also, B. Sauer: *Das Sogenannte Theseion*, Chap. V.



flowering acanthus beneath it; it says nothing about the serpent which is often represented between the shield and the statue of Athena—cf. Fig. 1).

Which statue occupied the place of honor on the pedestal, the place of honor being to the observer's left? Perhaps the question is answered by the bas-relief of a metope depicting Hephaistos and Athena, in which Hephaistos has the place of honor.<sup>19</sup> The bas-relief does not give a conclusive answer to the question, however, for the figures of the metope are facing each other, while the cult statues faced the entrance of the cella (see below). But there is a good presumption that the location of the statues as shown in Fig. 1 is correct.

There is an aesthetic reason which helps to confirm the two following suppositions: first, that the Hephaistos and the Athena represented in Fig. 1 were the statues which actually stood in the cella and, second, that Hephaistos occupied the place of honor. The torso of Hephaistos in Cassel has the weight of its body more on the left leg than on the right leg. The five copies of the Athena have, on the other hand, the weight of the body thrown on the right foot. Put this Hephaistos and this Athena side by side (cf. Fig. 1), and we have a stable, pyramidal, composition as seen from the front, the main point of view. If the weights of the bodies were thrown on the other feet, the statues would appear to tip outward—a particularly disagreeable composition for a group (cf. *Hesperia*, XV, 1946, p. 102, Fig. 19).

Athena and Hephaistos were closely related to each other both by blood and by common interests. Why, then, are they shown standing side by side in Fig. 1? Why do they display no interest in each other? The writer believes that they were principally concerned with the people who came into the temple to worship them. When a king and queen of today hold a reception, do they not look at their guests rather than at each other?

#### IV. CEILING OVER THE CELLA

From analogy with many other Greek temples there was, unquestionably, a flat wooden ceiling over the nave. The beams must have been heavy, for they carried not only the wooden construction between the beams (i. e., either wooden coffers or plain boarding), but also half the jack rafters and half the marble tiles above the nave. Further, with such a load the beams would, for good construction, be placed directly over the columns of the cella.

As already noted, the distance from the axes of the eastern-most columns to the face of the east cross wall was 1.36 m. (cf. Fig. 4). Using this measurement, the most easterly compartment of the ceiling becomes the same as all the other compartments of the ceiling—an additional argument that the axial distance from column to column is correct (the figures for the computation are indicated in Fig. 4).

Paint undoubtedly added to the effectiveness of the ceiling.

<sup>19</sup> E. Reisch: *op. cit.*, Fig. 37.

## V. WALLS BACK OF THE COLONNADES

The face of the orthostates was everywhere carefully finished, a sure indication that the face was intended to be seen. But the walls above the orthostates, although of solid marble, were at first intended to be stuccoed; for one can see that the exposed faces of the wall blocks had a treatment which would help to make stucco adhere to the wall. The treatment was obtained as follows: the exposed faces of the ordinary wall blocks were prepared before the blocks were put into the wall—the exposed faces were given a finely stippled surface (made with the point) surrounded by a narrow well-finished border. Then, after the blocks were in place, the finished borders were almost entirely removed by stippling.

Also before the wall blocks were set in place, their bottoms were dressed along the edges of the exposed faces, so that no pressure came near the face of the blocks—this was to prevent chipping of the exposed faces, not only when the blocks were being set, but also in the case of earthquakes rocking the temple after the latter was finished (cf. Fig. 7). Precaution against earthquakes was important, for the first damage caused by an undulatory movement of the earth would be to chip the horizontal edges of the exposed faces of the wall blocks, *if the pressure were not relieved*. The chipping would take place both in the cella and in the peristyle; the chipping in the cella would damage the stucco.

The relieving of the pressure (amounting to about 0.001 m.) did not extend through the entire thickness of the wall—it was carried back from the face of the wall a sufficient distance 1) to supply an air vent for the pouring of the lead for the damp-proofing (see below), and 2) to prevent the corner of the blocks from being broken off (cf. Fig. 7). It is not logical to carry the relieving of the pressure through the entire wall. As a matter of fact there are two places, in addition to the case shown in Fig. 7, where we can clearly see that the pressure was not relieved in the middle of the wall (the south side of the western Christian door, in the fifth course above the orthostates; near the south end of the west cross wall, in the tenth course above the orthostates). The writer can find no example of where the pressure is relieved in the middle of the wall.

Further, the vertical joints back of the stucco were damp-proofed with lead, for an earthquake might open the vertical joints. But no damp-proofing was deemed necessary in the horizontal joints of the wall, for, in this case, the superincumbent weight of the wall ensured tight joints, earthquake or no earthquake.<sup>20</sup> The architect of the temple evidently feared that dampness, working through the vertical joints,

<sup>20</sup> The vertical joints of the orthostates are not damp-proofed. This is good evidence that 1) the walls above the orthostates were intended from the first to be stuccoed, and 2) the lead used for damp-proofing was not meant to act as an ordinary dowel, that is, to prevent the blocks from shifting at right angles to the direction of the wall.



would cause unsightly blotches on the face of the stucco; perhaps, even, that the dampness might make the stucco fall off.

Such unusual pains were taken to protect the stucco that there is little doubt but that mural paintings on the stucco were originally intended.

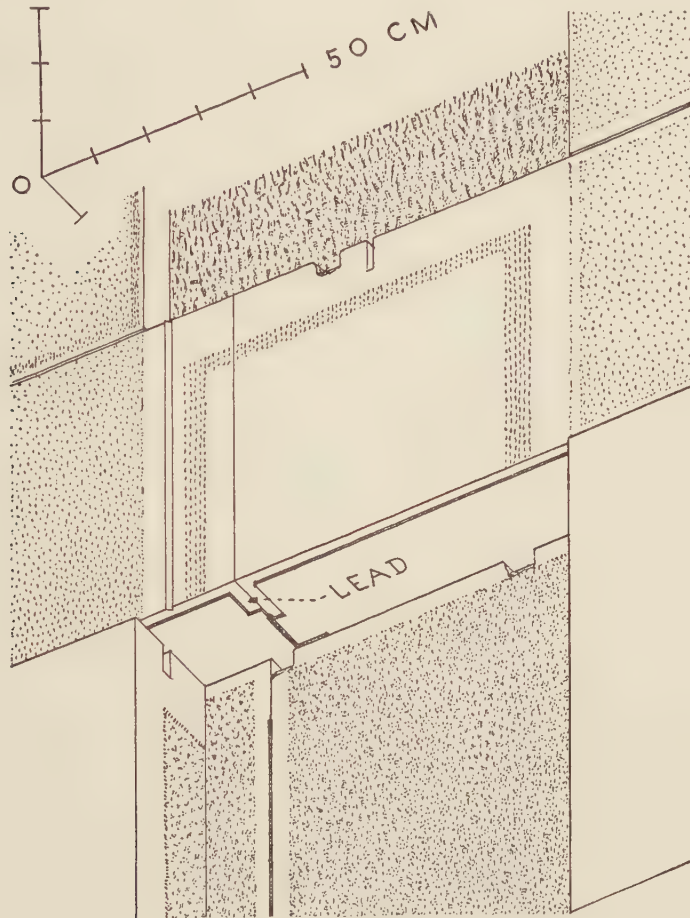


Fig. 7. Relieving of Pressure beneath the Wall Blocks; taken from the First Course above the Orthostates, at the Junction of the East Cross Wall with the North Wall

If mural paintings were at first meant to decorate the interior of the temple, they would not have been particularly well lighted by a door alone. Perhaps the original design for the east cross wall called for windows, as in the picture gallery of the Propylaea and in the east cella of the Erechtheum.

We have seen that the foundations of the colonnades in the cella did not bond with the walls of the cella, an indication of the possibility (though not an actual proof)

that columns were not originally intended for the cella. Why a change from mural paintings to columns? Perhaps because all the good mural painters were busy on other important works? Perhaps because the Committee in charge of the erection of the temple altered their minds about the kind of decoration they wanted in the cella? Whatever the difficulty, its solution may well have called for the substitution of colonnades for paintings. If so, windows in the east cross wall, less necessary with the new scheme, would perforce have had to be omitted, because the colonnades narrowed the nave so much that there would not have been room in the east cross wall for a dignified door and two windows (one on either side of the door).

The interior walls (with the exception of the orthostate) were covered with one coat of stucco consisting, the writer believes, of volcanic ash, lime, and fine sand, with cut straw as a binder (like the goat's hair we of today put into plaster). Excellent hard hydraulic mortars were well known in the fifth century B. C.,—they were used for lining cisterns long before the Hephaisteion was built. For such work the ancient Greeks had at least one abundant supply of volcanic ash, namely, that from the Island of Santorini (the same ash is used today). The ash is light in color. By itself it is inert. Like pozzolana, santorini must be mixed with slaked lime to give it its setting property. It sets under water as well as out of water. And, when set, it is harder than plaster. Either pulverized marble or sand, or both these, may be added to the mixture of santorini and lime to give the stucco the consistency desired for the work in hand. In the case of the Hephaisteion the writer believes the stucco is composed of crushed and screened santorini, of screened lime, and of very fine sand, with the addition of some straw. It is hard, thin (see below), and of a straw color. It is only fairly well smoothed, as though a second coat had been intended. The first six courses above the orthostate (that is, to the tops of the lower columns) are covered with stucco 0.002 m. to 0.003 m. thick; above the sixth course the stucco is generally as thin as a sheet of paper, but here and there, where the wall is somewhat irregular, the thickness reaches 0.003 m. That the very thin stucco existed above the sixth course is an important discovery of Mr. B. H. Hill.

The straw in both the thin and thicker stuccoes is finely cut and fairly uniform in size, averaging 0.005 m. in length and 0.0005 m. in diameter, with *ca.* twenty-five stems in an area of 50 sq. cm. of the stucco. (On the south wall, beginning at the southeast corner of the cella, in the first six courses above the orthostates, there are large patches of stucco in which a coarser straw was mixed with the stucco. This straw varies in length from 0.007 m. to 0.033 m., and in diameter from 0.001 to 0.002 m.; there are *ca.* eight stems in an area of 50 sq. cm. The plasterers may have started with the coarser straw and have found it too gross).

The stems in the stucco have long since rotted away, but their impressions are, in many places, beautifully preserved. The stems were straight. They were neatly cut to the desired lengths.



The stucco now shows little color on its exposed face, but pieces of the thicker stucco turn a reddish color when submerged in water. The same test applied to the thinner stucco reveals but a slight trace of red—perhaps here the color has faded on account of the extreme thinness of the stucco.<sup>21</sup> The color employed was a water color, for washing with water removes it to a considerable extent. The color did not sink into the stucco, showing that the color was applied after the stucco had set. We have, then, the same stucco used in the thin coat on the upper portion of the walls and in the thicker coat on the lower portion of the walls. The water color of both the upper and the lower portions of the walls was thus applied to a background made of the same stucco (differing only in thickness): consequently the color would dry out everywhere a uniform tone (something which would not have happened if the materials of the backgrounds had differed).

If we mark on the north wall the axes of the three most westerly columns of the north colonnade of the cella, we find that the stucco is well finished in the first and second intercolumniations. But the stucco is somewhat wavy behind the columns, especially behind the second and third columns from the west. Evidently the plasterers found it difficult to do a good job back of the columns on account of the nearness of the columns to the wall. The waviness in the stucco behind the columns would, however, be fairly well concealed by the columns themselves. (Please note that the position of the wavy stucco is a further indication that 1.553 m. is the correct axial unit of the colonnades along the north and south walls). The stucco is, evidently, later than the columns. But how much later?

The demarcation between the thin and thick stuccoes, which occurs at the top of the lower columns (cf. Fig. 4), does not take place in a ship-shape straight line—here and there the thick stucco runs irregularly up into the thin stucco. The poor workmanship can again be explained on the ground that the plasterers had to work behind capitals and architraves which stood at no great distance from the wall (cf. Fig. 2). The irregular line, like the wavy stucco behind the columns, shows that the stucco was applied to the wall after the colonnades were in place.

The stucco is not carried into the reveals of the church door at the west, indicating that the stucco antedates the making of the door. But how much earlier is the stucco than the door?

Certainly the stucco of the Hephaisteion is much better than the Christian stucco used in the temple. For, if we examine the first layer of stucco applied to the soffit of the triumphal arch of the church (Prof. Orlandos removed the arch; portions of its soffit, because they were decorated with painted figures, are now preserved in the Agora Museum), we find that the plaster is entirely different from the stucco we have described. There are two varieties of the church plaster: 1) a plaster composed of

<sup>21</sup> Vitruvius: M. H. Morgan's translation, p. 207.

lime and straw, about 1 cm. thick and very soft (preserved in the Agora museum); 2) a plaster composed of lime and sand (no straw), about 1 cm. thick, and somewhat harder than the first kind of church plaster (this second kind of plaster is to be found on the soffits of the triumphal arch blocks lying to the south of the Hephaisteion). The much better quality of the stucco on the walls of the Hephaisteion than on the Christian triumphal arch is an additional indication that the Hephaisteion stucco antedates the church stucco.

Does the straw in the stucco of the Hephaisteion help us to date the stucco? Straw begins to appear in stucco of the Hellenistic period (example: in the Hellenistic house excavated by Miss Mabel L. Lang in 1948 in the Agora of Athens, near the southwest corner of the main area). But straw was used in mud bricks of the fifth and earlier centuries, and in the terracotta molds of the statues of Hephaistos and Athena (many pieces of molds are preserved in the museum of the Agora of Athens). The use of straw as a binder was, thus, known in the fifth century. If used in bricks and in terracotta molds of the fifth century, why not also in stucco of the same period? If the stucco of the Hephaisteion dates from the fifth century—the most plausible date for it because it is so thin and hard, and is made, as the writer believes, of carefully prepared santorini, lime, and sand—then we have the earliest known use of straw in stucco.

The red water color of the stucco of the Hephaisteion does not tell us much about the date of the stucco, for such a color might have been applied to the walls in almost any period. We may remark, however, that painted stucco of the fifth century seems to have required two coats of stucco—a first coat of santorini, lime, and sand; a second coat of santorini, lime, and pulverized marble. At least this, the writer believes, is the composition of the fifth century stucco of the Tholos in the Agora of Athens, which is a good example of painted fifth century stucco. The first time the walls of the Tholos were stuccoed, two coats were applied. The first coat was composed of santorini, lime, and a rather coarse sand (no straw): about 0.0015 m. thick, hard, and gray in color. The second coat was composed of santorini, lime, and pulverized marble (no straw): about 0.0015 m. thick, hard, and white in cross section. The second coat was painted red, but the color did not sink into the stucco. The use of coarse sand in the first coat may be explained on the ground that the stucco was applied to a wall of roughly dressed poros blocks, which require a coarse coat of stucco. The marble wall of the Hephaisteion did not require so coarse a coat—a coat of santorini, lime, fine sand, and straw sufficed.<sup>22</sup>

It seems probable that the coat of stucco in the Hephaisteion (with straw in it) was to be covered with a second coat of santorini, lime, and pulverized marble, like

<sup>22</sup> Samples of the stuccoes mentioned in this article have been filed in the Agora Museum, as have some samples of other ancient stuccoes examined in the course of the investigations.



the second coat of the Tholos as mentioned above. The second coat in the Hephaisteion was omitted—perhaps because the architect considered that the first coat of stucco, inconspicuous behind the columns and architraves, was good enough as a ground for a coat of paint (see below). He thus finished the building more quickly, and he saved money. Delivery and expense are factors which architects often encounter at the end of building operations—the money factor was especially urgent in Athens toward the close of the fifth century B. C.

The writer has consulted Prof. G. A. Soteriou, Prof. A. K. Orlandos, and Mr. J. Travlos in regard to the stucco of the Hephaisteion. These scholars are particularly competent to judge Christian plasters. They are unanimous in saying that they have never seen Christian plasters which even remotely resemble the stucco of the Hephaisteion. They are agreed that Christian plasters are much thicker than the Hephaisteion stucco; that the Christian plasters are made of lime with or without sand in it, and with or without straw in it. The writer is persuaded that Christian plasters are softer than earlier stuccoes chiefly because lime was employed in Christian times instead of the santorini and lime of the earlier periods. Moreover, Prof. Orlandos and Mr. Travlos, who are authorities on Greek and Roman stuccoes in addition to Christian plasters, believe, as the writer does, that the stucco of the Hephaisteion may well date from the latter part of the fifth century B. C., because thin stucco is characteristic of the fifth century B. C., while it is not so characteristic of the stuccoes of the Roman and Hellenistic periods.

The writer has also consulted Prof. Constantin J. Livadefs of the Polytechnion of Athens, Greece. He is continually testing cements, mortars, and concretes. The writer is grateful to him for his valuable advice.

The writer is further persuaded that, if the stucco was put on in the fifth century, it was painted soon afterward, as the cella would hardly be left with walls covered with raw stucco. Assuredly, red colored walls would make an excellent foil to the white Pentelic columns, for red would give an illusion of distance between the walls and the columns, and thus make the cella appear more roomy; let us remember that the columns, not in the original scheme, had a tendency to fill up the cella. We have only to look at the white marble columns of the Gennadius Library in Athens, Greece, with red plastered walls behind them, to understand how effective the interior of the Hephaisteion must have been.

To sum up the chief operations:

1: Walls prepared for mural paintings above the orthostates;

A. Walls made of blocks which had a stippled finish (with plain borders) on their exposed faces. (Plain borders were to be removed by stippling after the blocks were in the walls).

- B. Under surfaces of wall blocks had the pressure relieved beneath their exposed faces, to prevent chipping.
- C. Vertical wall joints damp-proofed with lead.

2: Colonnades substituted for mural paintings;

3: Application of a hard stucco composed of santorini, lime, fine sand, and straw, very thin in the upper portions of the walls, about 0.003 m. in the lower portions. Probably intended second coat of stucco, perhaps of santorini, lime, and pulverized marble, omitted;

4: Application of a water color paint to the stuccoed portions of the walls.

It seems likely that all these operations took place in the fifth century B. C.

#### VI. BONDING OF THE COLONNADES TO THE WALLS

The colonnades were probably tied to their surrounding walls by means of a marble ceiling at the level of the wooden ceiling over the nave. There is room in the soffit of the temple for such a bonding (a wise precaution against earthquakes).

\* \* \*

The recent excavation of the Hephaisteion by the American School of Classical Studies revealed important features in addition to those alluded to in this article—one example, the existence in classical times of a formal garden around the temple.<sup>28</sup> Other ancient monuments in Athens—such as the Olympieion and the Asklepieion, to mention only two—would surely prove as profitable to excavate scientifically as did the Hephaisteion.

GORHAM PHILLIPS STEVENS

AMERICAN SCHOOL OF CLASSICAL STUDIES  
AT ATHENS

<sup>28</sup> Dorothy Burr Thompson: *Hesperia*, VI, 1937, pp. 396-425.

#### EDITOR'S NOTE

A different arrangement of the cult statues in the light of recently discovered evidence will be suggested by Mrs. Semni Karouzou in a forthcoming article.



## GRILLES OF THE HEPHAISTEION<sup>1</sup>

(PLATE 81)

**O**BJECTS of value were usually kept in the pronaos and opisthodomus of Greek temples. To protect such objects grilles were placed between the columns and between the columns and antae in those parts of the temple. The Hephaisteion is typical of the disposition.

The photographs reproduced on Plate 81 (1 and 2) show the reader that the Hephaisteion had sills in contact with the columns and antae in question. Scratches and weather marks upon the stylobate on which the columns of the pronaos rested, and the stylobate upon which the columns of the opisthodomus still rest, give the exact location of the sills.<sup>2</sup> The traces of the sills against the columns and antae are so well preserved that there is no doubt but that the sills were of marble. The length of the sills and their cross section are easily determined (cf. Figs. 1 and 2). Further, the way the sills must have been cut to fit against both the columns and the antae can be worked out (cf. Figs. 3 and 4). Finally, the grilles themselves, from the traces they have left upon the columns and antae, are restorable with a fair amount of accuracy (cf. Fig. 5).

Please note from figures 1, 2, 3, and 4 that the sills between the columns and also those between the columns and the antae were wedge shaped. Obviously they were slipped into place from behind, after the columns were up. In the case of the contact with the antae, the inner portion of the antae bases had to be cut flush with the antae faces above before the sills could be set (cf. Pl. 81, 2 and Figs. 1 and 2); but the sills remained wedge shaped—compare their contacts with the columns.

<sup>1</sup> The writer wishes to thank Professor and Mrs. Homer A. Thompson and Mr. John Travlos for their valuable advice in the preparation of this article.

<sup>2</sup> Both columns of the pronaos are modern restorations and, consequently, give us no data for the grilles (A. K. Orlandos, *Ἀρχαῖον τῶν Βυζαντινῶν Μνημείων τῆς Ἑλλάδος*, Τόμος Β', 1936, pp. 207-216). The bottom drum of the north column is ancient, but it does not come from the Hephaisteion. This bottom drum has a modern (?) indication for the abutment of a sill, but the indication is quite different from the sill cuttings in the columns of the opisthodomus, where the columns are *in situ*. Furthermore, the marble of the bottom drum in the pronaos is very inferior in quality to the marble used in the Hephaisteion. Fortunately, in the pronaos the antae, the stylobate blocks between them, the architrave blocks, and the north and south walls where they abut against the antae are *in situ*. In the opisthodomus the antae, the columns, the stylobate blocks, the architrave blocks, and the north and south walls are *in situ*. The cuttings in the bases of all the antae of the pronaos and opisthodomus are the same, and so are the essential traces left by the grilles on all four antae faces. Ample data are preserved to show that the sills and the grilles of both the pronaos and the opisthodomus were alike.

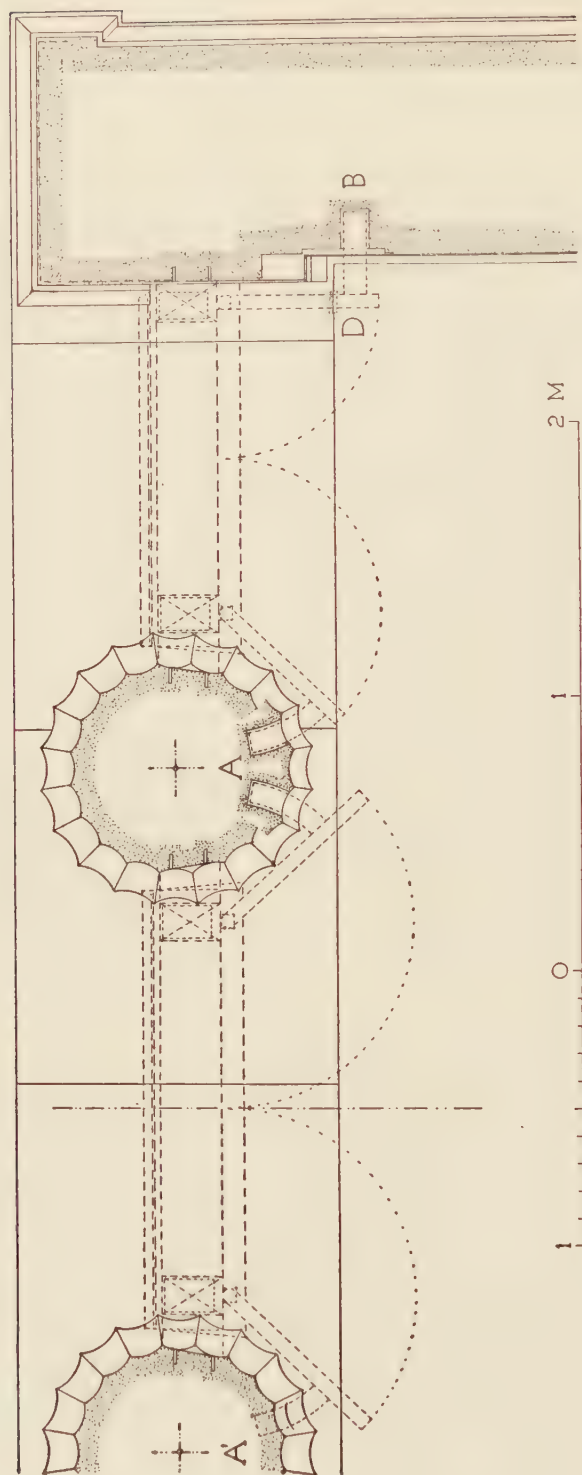


Fig. 1. Details of the Columns and North Anta of the Opisthodomus: Plan.



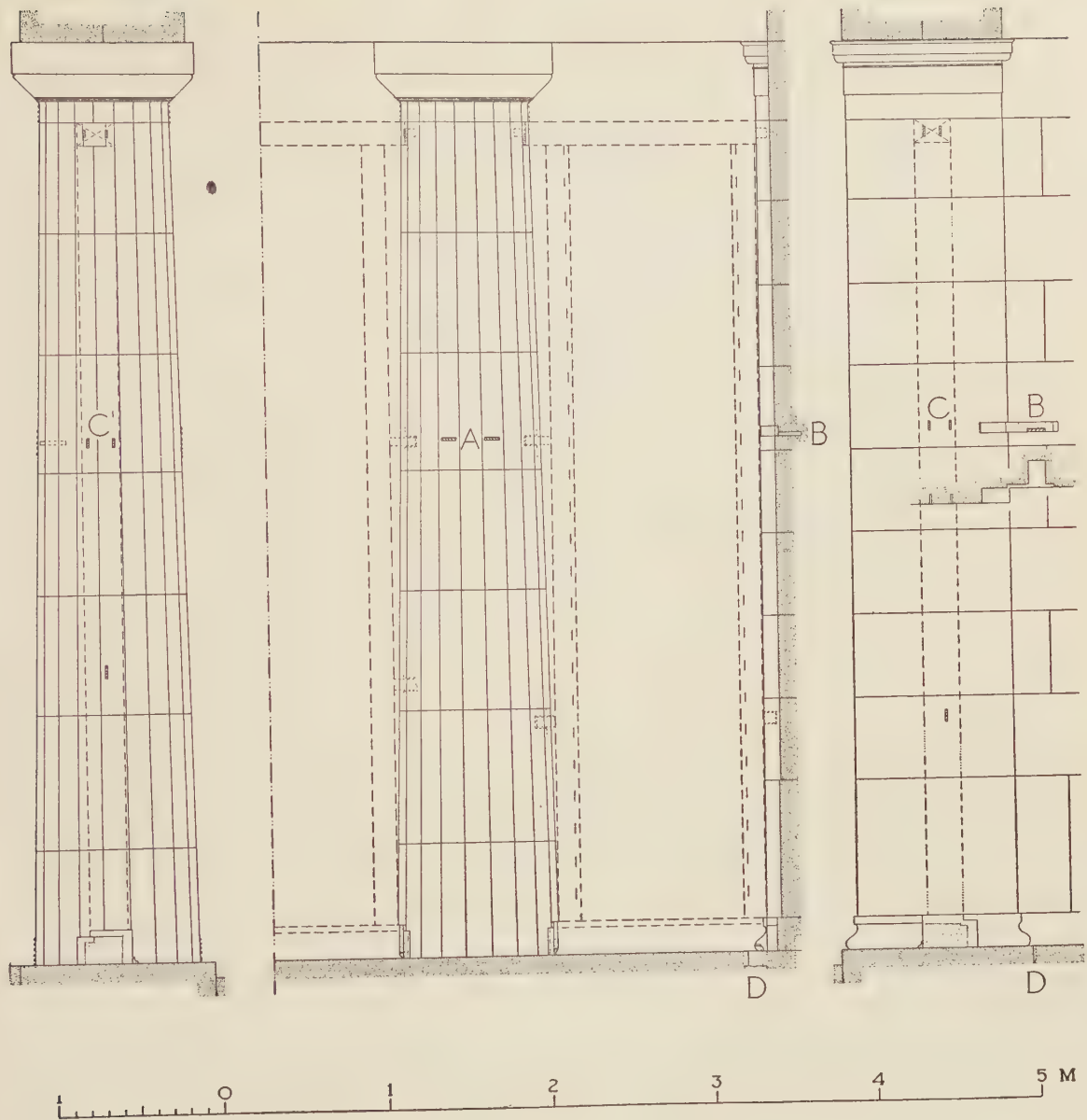


Fig. 2. Details of the North Column and North Anta of the Opisthodomus:  
Inside Elevation and Sections.

The workmanship for the contact of the sills with the columns and antae is so good that we may safely claim that the sills were not an after-thought, but an essential part of the temple.

Data for the grilles resting upon the sills are abundant.

Scratches and weather marks on the antae faces show how deep the jambs were and give the relation of the jambs to the sill (cf. Figs. 1 and 2).

The manner of doweling the jambs to the columns and to the antae is evident (cf. Figs. 1 and 2).

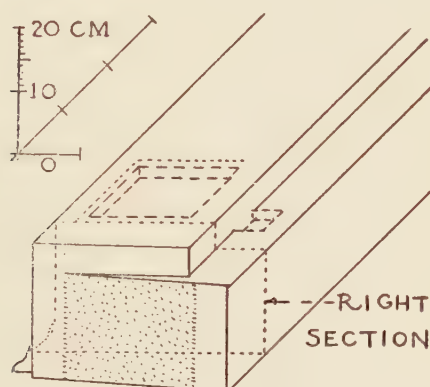


Fig. 3. End of a Sill in Contact with a Column: Restoration.

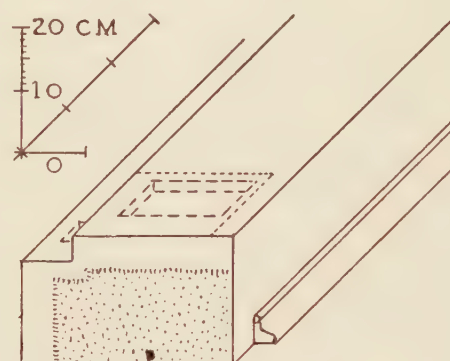


Fig. 4. End of a Sill in Contact with the Base of an Anta: Restoration.

There is reason for believing that the jambs were not made of marble, for, if that material had been employed, there would have been a horizontal joint between the jamb and the lintel and the top of the jamb would have been doweled to the columns and antae. All the dowel cuttings in the necking of the columns and all the corresponding cuttings in the antae are located well above such a joint. We may, therefore, safely say that the jambs were not of marble.

At the necking of the columns are proofs for a lintel over the jambs of the grilles. The position and size of the lintel can be accurately determined (cf. Figs. 1 and 2).

There are other indications that the lintels were not made of marble: (1) If the lintels were made of marble, the tops of the dowels attaching the lintels to the columns and antae would line with the tops of the lintels (cf. Fig. 2). All the fourteen existing dowel cuttings are located well below the tops of the lintels. (2) The cross section of the lintels was 0.11 m. x 0.22 m. The span of the lintel between the neckings of the columns on the axis of the temple was 1.78 m.; between the jambs the clear span was 1.23 m. The cross section and especially the height of a marble lintel of the above dimensions should be considerably greater for good structural design. In the fairly



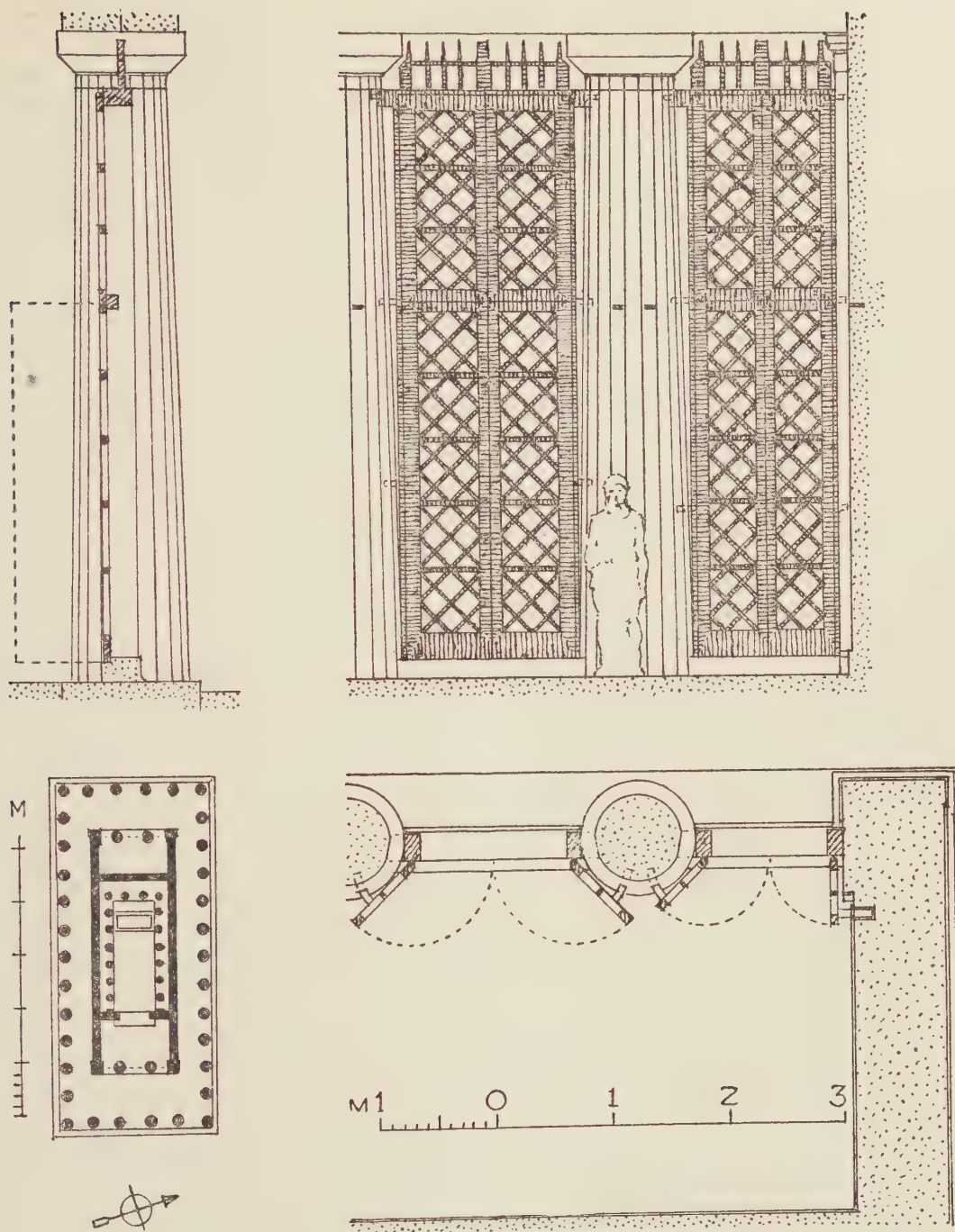


Fig. 5. Grille of the Opisthodomus: Restoration.

similar case of the south door of the five doors of the Propylaea of the Acropolis of Athens, where marble jambs and their lintel are still in place, the jambs are 0.11 m. x 1.02 m. in plan and 3.05 m. in height, and the lintel, which has an air space between it and the true lintel over the opening, is 0.32 m. high. The span between the jambs is 1.20 m. A marble lintel only 0.11 m. high is not possible for the Hephaisteion.

Of what were the jambs and lintels of the Hephaisteion made? The fact that the dowels at the necking of the columns are considerably above the bottom of the lintels is, surely, an indication that the jambs were mortised into the lintels, just as in the case of the rails of any wooden frame. A good wood, we believe, was the material used for both the jambs and the lintels. The position of the dowels at the necking of the columns (and the position of the corresponding dowels in the antae) is, perhaps, an indication that the lintels were made up of two timbers one above the other, the top of the lower timber (the bigger of the two) being in line with the top of the dowels. We believe, further, that the wood was sheathed with bronze plates. Consider the many ancient tripods the cores of which were sheathed with decorative bronze plates. Consider, also, the western door of the Parthenon, which had a heavy wooden frame with a metal covering ornamented with gold (*Hesperia*, Supplement III, pp. 74-79). We may add that in the case of the Hephaisteion the bronze sheathing would conceal the heads of the dowels which bonded the jambs to the columns and antae.

The traces of the grilles in the pronaos and opisthodomus of the Parthenon are so similar to the corresponding traces of the Hephaisteion that the grilles of the two temples must have resembled each other in many ways.<sup>3</sup> For example, from the similarity we may infer that the section through the jambs of the Hephaisteion was the same as the section through the lintel of the Hephaisteion (with the possible exception of the jambs in the smaller openings of the Hephaisteion, as suggested later on).<sup>4</sup> This section through the jambs would thus become 0.11 m. x 0.22 m. Such a section indicates, again, that the jambs, which had a total height of *ca.* 4.80 m., were not made of marble—the cross section is altogether too small for the height.

For a restoration of the valves of the grilles there are both data and conditions which the valves must have fulfilled:

1. Because the lintels and jambs were of wood probably sheathed with bronze, the valves were in all likelihood treated in the same way. That is, the rails would be of wood sheathed with bronze. The grillework within the rails may have been composed of hollow bars made by bending bronze plates into the desired shapes—this is the construction in use today when light but strong grille work is desired (such a construction was needed if the valves of the

<sup>3</sup> *Hesperia*, XI, 1942, pp. 354-364.

<sup>4</sup> *Hesperia*, XI, 1942, p. 357, Fig. 3, and *Hesperia*, Supplement III, Fig. 57.



- Hephaisteion were to be opened easily: also a heavy valve would cause a big strain upon the jambs).
2. The sills had a rabbet against which the bottom rail of the valves struck. As the rabbet was on the inside, the valves swung inward.
  3. The height of the movable valves is known quite accurately from the cuttings, in the columns and in the walls of the pronaos and opisthodomus, for the bumpers (cf. Fig. 1, A, A', B and Fig. 2, A, B).<sup>5</sup> It will be seen from the position of the bumpers in relation to the valves that bumper and grille could have encountered each other only along the top rail of the valve, thus giving the height of the valve with a good deal of accuracy.
  4. The same bumpers tell us that each opening had two valves and that the valves swung inward (confirming the data given by the rabbet in the sills).
  5. The openings in the grilles must have been small enough so that boys could not crawl through them.

<sup>5</sup> The cutting at B, Figs. 1 and 2, also occurs at the south anta of the opisthodomus and again in connection with both antae of the pronaos. The deep portions of the cuttings can be nothing but cuttings for the metal bumpers of the valves of the grilles, similar to the cuttings for bumpers in the columns (cf. Fig. 1, A, A', B, and Fig. 2, A, B). But the rest of the cutting at B, Figs. 1 and 2, is not so easily explained, for the cutting does not go as far as the jambs of the grilles—it apparently has nothing to do with the grilles. If we try to connect the cutting with the support of the near-by secondary lintel—the lintel at the top of the valves of the grille—we find that there should be a similar cutting in the adjacent column, to support the other end of the secondary lintel. In fact we should find similar cuttings in four places, two in each column. The two columns are well enough preserved to state definitely that they never had such cuttings. The cuttings may indicate the top member of some sort of shelving placed against the walls of the pronaos and opisthodomus. In such shelves small precious votive offerings, gold, important documents, and the like, could safely be locked up. Grilles in front of the pronaos and opisthodomus would not be needed unless they protected something valuable. The cutting shows, further, that the top member of such shelves would be anchored around the bumper dowel, probably to hold the shelves securely in place. The shallow rabbets at the ends of the cuttings in the opisthodomus (cf. Fig. 1 and 2, B) suggest that here such shelves were made of wood and sheathed with bronze. Similar rabbets in the pronaos do not exist. We may explain the omission of the shallow rabbets in the following way. In the pronaos the shelving could only run along the north and south walls on account of the door in the west wall (of the pronaos)—the door would be large, as it was the entrance into the cella of the temple. There would be no difficulty in snugly pushing the shelving into any necessary cuttings in the walls. In the opisthodomus, on the other hand, the shelving could, and probably did, run along all three walls. The shelving along the east wall would be the first to be put in place—an easy piece of work. As the shelving would be mitered in the northeast and southeast corners of the opisthodomus, the shelving of the north and south walls would have to be not only pushed slightly diagonally to avoid the anta but also revolved horizontally back into the cuttings in the walls. This operation would leave a small vertical gap at the west end of the shelving. These shallow rabbets, then, tell us that small pieces of metal sheathing projected from the shelving, their purpose being to conceal the vertical gaps.

For the storage of gold in the opisthodomus of the Parthenon, there were chests [*I. G.*, I<sup>2</sup>, 314, ll. 14 ff., and 313, ll. 117 ff.].

6. At the top of the movable valves should be a secondary wooden lintel (between the jambs) for the top rail of the valve to strike against. The dowels at C and C', Fig. 2, indicate the position of the secondary lintel, for the dowels ought to be placed at the level of the secondary lintel to receive the shock caused by the closing of the valves. Furthermore, the dowels at C and C' should be level with the pivot at the top of the valve (cf. Fig. 5), to take care of the strain which every top pivot causes on its jamb (unless a wheel, running on the pavement, be placed beneath the valve).
7. The individual compartments of the movable valves and the compartments of the fixed portions of the grilles above the movable valves should be alike, if the grilles were to count as a unit from top to bottom (cf. Fig. 5).
8. The grilles between the columns were much wider than the grilles between the columns and the antae. In spite of this difference in width, the two grilles should resemble each other in design as closely as possible (cf. Figs. 1, 2, 5). The bottom diameters of the columns of the pronaos and opisthodomus of the Parthenon differ by 0.07 m., the diameters in the opisthodomus being the bigger. To have the valves of the grilles of the pronaos and the opisthodomus of the Parthenon exactly as wide as each other, the jambs of the grilles of the opisthodomus were made 0.035 m. slimmer than those of the pronaos.<sup>6</sup> Something of the same kind probably took place in the case of the central and side openings of the Hephaisteion, where the difference in width between the grilles is considerable (cf. Figs. 1, 2, 5). Fig. 2 gives an alternative study for slimmed jambs in the smaller openings, between the columns and antae. Slimmed jambs seem called for in these openings, for the valves, being a good deal smaller than the valves in the central openings, were consequently lighter—they might well have had slimmer jambs. By slimming the jambs here, the grilles of the two openings become as nearly as possible of the same width. In figure 5 the elevation of the smaller grille is drawn with slimmed jambs.
9. The distance between the marble architrave over the columns and the wooden lintel over the grilles amounted to 0.485 m. A thief would be able to climb the grille and to pass through such a space unless it were subdivided.

Fig. 5 is a restoration of the grilles, which combines these various features.

To prevent the valves, when open, from flapping about in the wind, bumper-fasteners at the bottom of the grilles (as in the case of the Parthenon) would be desirable. Unfortunately, the pavement blocks of both the pronaos and opisthodomus

<sup>6</sup> *Hesperia*, XI, 1942, p. 361, Figs. 7 and 8.



are lacking. There are, however, two indications that pavement bumper-fasteners existed:

- 1) Near the north anta of the opisthodomus (Figs. 1 and 2, D) there is a possible trace of a dowel in the anthyrosis of the east vertical face of the stylobate; and there are a few marks of the pointed chisel, in the stylobate, made by someone who wanted the metal dowel. The position of the dowel is correct for a bumper to hold the north valve.
- 2) Near the north anta of the pronaos there are traces of the pointed chisel similar to the traces in the opisthodomus; they are more pronounced.

Three sides of these dowel cuttings must have been in the lost floor blocks; the fourth side was the vertical joint between the floor blocks and the stylobates. Under such conditions there would be but few traces of the chisel upon the vertical anathyrosis of the stylobates. In the Parthenon the dowel cuttings for the bumpers occur in the vertical joints between the floor blocks and the stylobate blocks, and on some of the stylobate blocks there are traces of the chisel used in making the dowel cuttings.<sup>7</sup>

As already stated, the resemblance between the grilles of the Hephaisteion and those of the Parthenon is striking, so striking, indeed, that it is impossible to say which grille antedated the other. This is unfortunate; for, if we could say which grille was the earlier, the history of both temples would be somewhat better understood.

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<sup>7</sup> *Hesperia*, Supplement III, Fig. 54, and pp. 72-75.

## A TILE STANDARD IN THE AGORA OF ANCIENT ATHENS

(PLATE 82)

SEVERAL of the most important administrative offices ('Αρχεῖα) of the Athenian state were concentrated in the southwest corner of the Agora (Fig. 1). Here were the Bouleuterion or Council House, the Metroon which housed the state archives, and the Tholos which served both as a club-house for the Councillors and as a repository for a set of official weights and measures. In the open square opposite the Metroon stood the long enclosure around the statues of the Eponymous Heroes, known from numerous literary references as the official public notice board of Athens.

The recent excavations in the Agora have brought to light a small building toward the southwestern corner of the square, which may with great probability be regarded as another in the group of 'Αρχεῖα; it is now designated on plans of the Agora as the Civic Offices (Fig. 1).<sup>1</sup> The building consists of three rooms set side by side at the foot of the terrace wall to the north of the Middle Stoa. The rooms diminish in size from east to west in such a way as to cause a minimum of obstruction to traffic moving in or out through the southwest corner of the square. Although the exploration of the area has not been completed, there is reason to believe that the building dates from the early Roman period, perhaps the latter part of the first century B. C.; it was certainly destroyed in the Herulian sack of A. D. 267, abandoned and speedily buried.<sup>2</sup>

Among the beddings for monuments that rose in front of the Civic Offices one is outstanding in size and interest, viz. a massive pedestal set in the angle formed by the porch of the easternmost room (Fig. 1, A and Pl. 82, 1).<sup>3</sup> The pedestal is made of re-used poros blocks of unknown provenance. They are *in situ* in so far as the monument is concerned. The north face of the lower eastern block was originally covered with a very thin, hard, red stucco of which some traces remain. The red coloring

<sup>1</sup> For reports of the excavations compare *Hesperia*, IV, 1935, p. 324; XVI, 1947, p. 200; XVII, 1948, pp. 151-153.

<sup>2</sup> It is likely that the Civic Offices were necessitated by the temporary loss of the Tholos, due to damage inflicted during the Sullan sack of 86 B. C. But we may also imagine that the Civic Offices were the result of the natural growth of the City of Athens, for civic consciousness brings with it an increased number of magistrates and consequently a greater need for office space.

<sup>3</sup> Professor Homer A. Thompson, who is in charge of the excavations of the ancient Agora of Athens, kindly supplied the writer with the data thus far presented in this article; and, as the writing and drawings for the article progressed, Professor Thompson continued to give very valuable assistance.



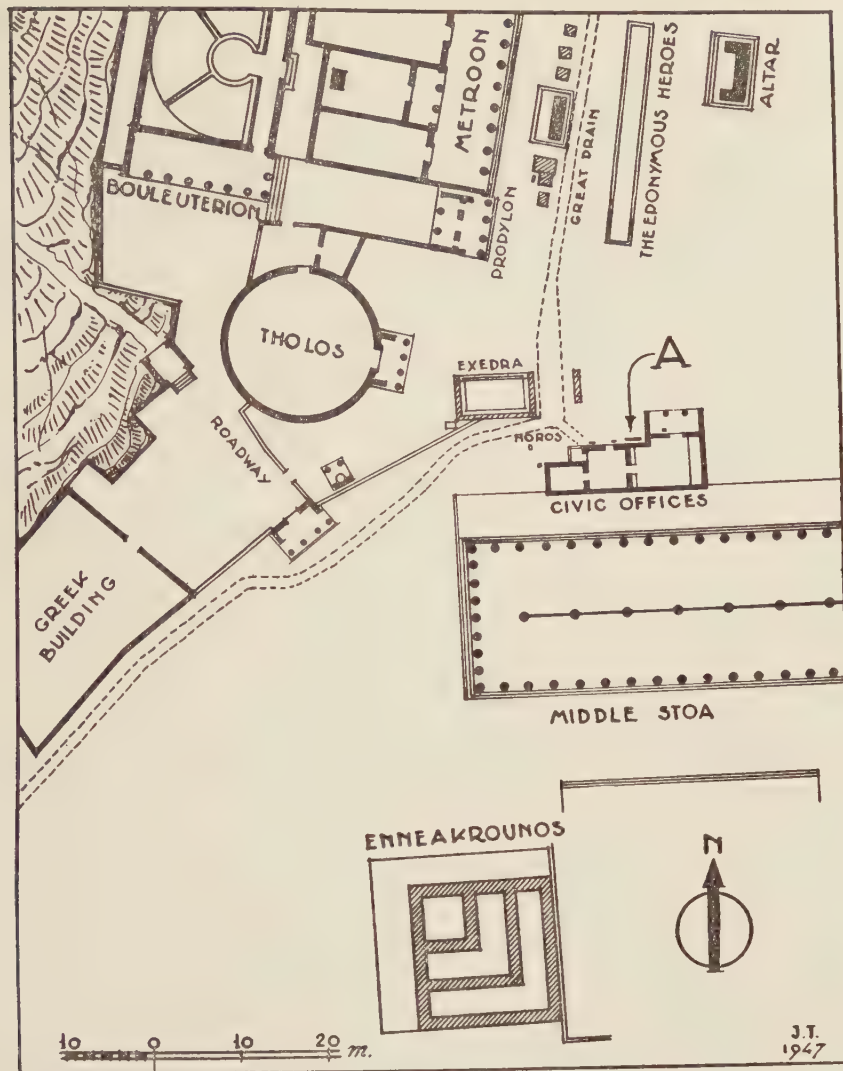


Fig. 1. Southwest Corner of the Agora of Ancient Athens: Plan.

matter was thoroughly mixed with the stucco before the latter was applied to the block. The stucco probably dates from the fifth century B. C.<sup>4</sup>

The two blocks of the upper course of the pedestal are cut with a broad deep groove suitable for the reception of large stelai (cf. Fig. 2). In addition to the slot there are two smaller cuttings in the top of the course, to the north of the slot (cf. Fig. 2, plan A-B). Both these cuttings are roughly made. The eastern cutting is

<sup>4</sup> A sample of the stucco is on file in the museum of the excavations of the ancient Agora. For Greek stucco compare G. P. Stevens, pp. 160-163, above.

fairly complete, including a drain on its northern side; but there is little left of the western cutting.

During the excavations two fragments of the stelai which were originally inserted in the slot mentioned in the last paragraph were found not far from the pedestal itself. One fragment was large, the other small (cf. Fig. 2). Both were of Pentelic marble. The blocks were replaced in the slot, but not exactly in their original positions—the west side of the big fragment should be flush with the west face of the poros block beneath (Fig. 2, G), a relation which is indicated by the fact that the slot runs to the west end of the poros block—an important fact, for it helps in estimating the width of the original stelai, as we shall see a little later on. Representations of curved roof tiles are carved in full size on the two marble fragments. From the above observations we may conclude that the monument was a standard for roof tiles, and, further, that it was a municipal standard, as it was located in front of the Civic Offices.

The tiles carved on the standard are curved and thin (Fig. 2, plan E-F)—they are representations of Laconian tiles. All Laconian tiles, so far as the writer is aware, are made of terracotta and are thin (sometimes as thin as 0.012 m.). Curved tiles, especially if thin, could not easily be cut in marble, and they would, moreover, be liable to break in transporting and setting. A highly paid stonecutter would have to be employed to produce such marble tiles, and it would take him a long time to make even one tile. All examples of marble tiles known to the writer are of the Corinthian type (flat pan tiles and hipped cover tiles). On account of the expense involved, marble tiles were used only for very important buildings.

The contention that the standard represents terracotta Laconian tiles is supported by the fact that many such tiles have come to light in the excavations of the Athenian Agora, while not one curved marble tile, thick or thin, has thus far been dug up.

The Laconian and Corinthian types of tile are well illustrated by the tile standard at Assos, where curved pan and curved cover tiles as well as flat pan and hipped cover tiles are cut in full size on the same block.<sup>5</sup> We may think of the curved tiles of the Assos standard as models for terracotta tiles, and of the flat pan and hipped cover tiles as models not only for marble tiles but also for terracotta tiles, for there are many examples of terracotta flat pan and terracotta hipped cover tiles in Greece.<sup>6</sup>

Our Athenian standard, then, is concerned solely with the control of terracotta tiles. Now, ancient terracotta tiles have certain characteristics all their own—characteristics which it will be profitable to discuss briefly. Fortunately there are excellent samples of both curved terracotta pan and curved terracotta cover tiles in the Agora Museum in Athens. In types they are like those of the standard. In addition, the dimensions of some of them closely agree with the dimensions of the standard.

<sup>5</sup> F. H. Bacon, *Assos*, p. 71.

<sup>6</sup> There are good examples of flat pan and hipped cover terracotta tiles in the museum of the Athenian Agora (Cat. Nos. A 1178 and A 1181).



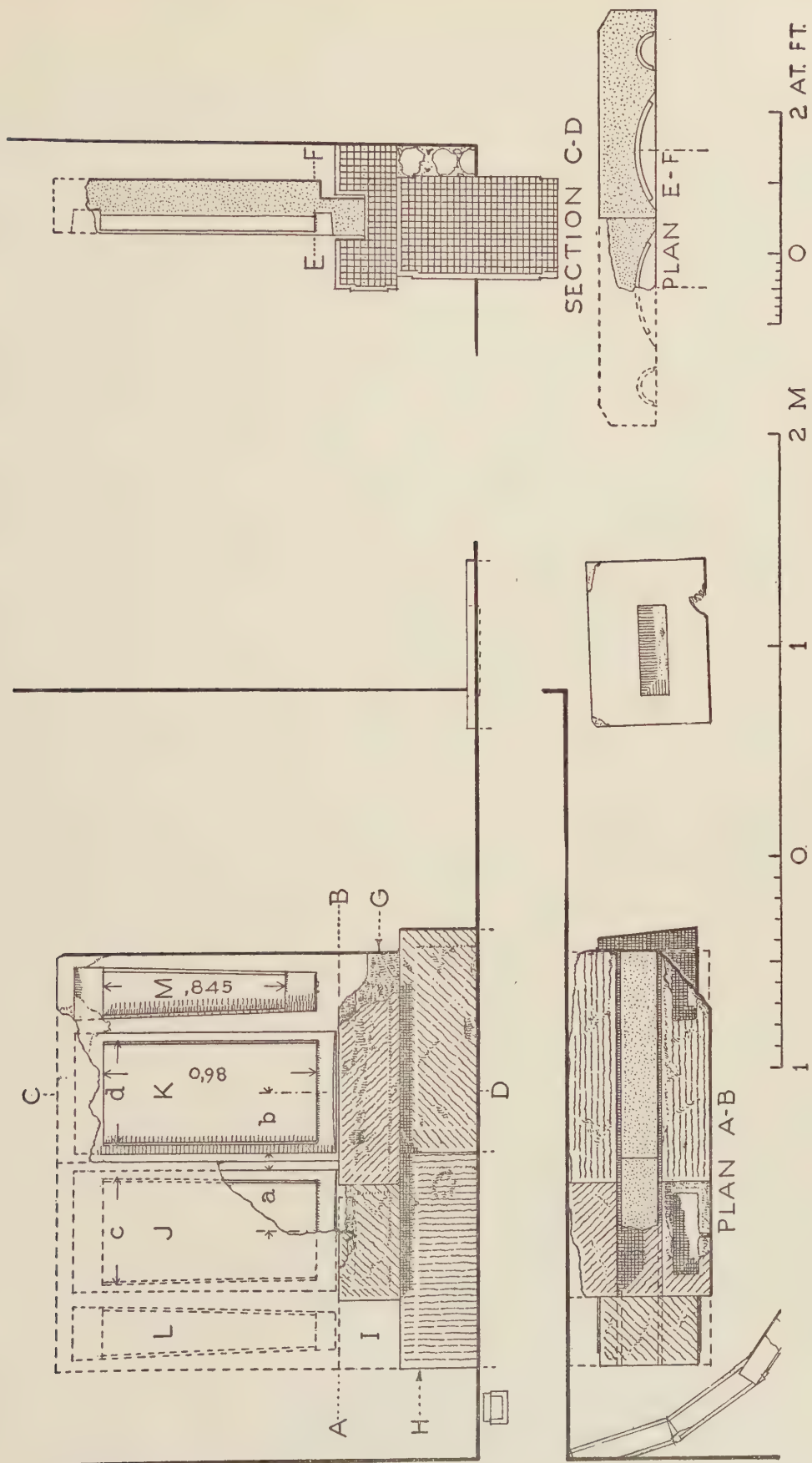


Fig. 2. Drawings of the Tile Standard at "A" in Fig. 1.

The type of these ancient terracotta tiles is the same as that of the modern Athenian terracotta tile. But the ancient cover tile is about twice as long as the modern tile, while the cross sections of the two are almost alike; the ancient pan tile is about twice as long and twice as wide as the modern tile.

The ancient terracotta tiles presented certain advantages and also certain disadvantages when compared with the ancient marble tiles. Where good clay was abundant, as for example in Athens, terracotta tiles could be mass-produced relatively quickly. In other words, they were considerably less expensive than marble tiles. Then again, the weight of terracotta is only 74% of that of marble, and, in addition, terracotta tiles were, and are today, made much thinner than marble tiles. Consequently light terracotta tiles required a lighter roof construction than did heavy marble tiles, and a lighter wood construction meant a saving in money. Still another advantage of the terracotta tile was that before being dried in the sun it could be easily touched up by hand and even somewhat modified so that the overlapping of the tiles might become more weather proof. And after the tiles were fired, they could be more easily chiseled and sawed than marble tiles.

Two disadvantages of curved terracotta tiles may be mentioned:

(1) Terracotta pan tiles had to be bedded in clay. Those preserved in the Agora Museum are only 0.017 m. to 0.02 m. thick, *ca.* one meter in length, and *ca.* 0.45 m. in width. If such tiles were laid directly on boarding, they would easily break along the center of the tiles. To prevent the breakage, the tiles were, therefore, imbedded in clay.<sup>7</sup>

(2) When damp clay is dried in the sun and then baked in a kiln, the clay shrinks about 10%. The percentage varies somewhat with the ingredients in the clay (for example, less shrinkage takes place when sand is added to the clay). The writer tested the shrinkage at a large tile factory in the outskirts of Athens, with the following results: the mould for the tile measured 0.508 m. in length and the finished product 0.456 m.; shrinkage, 8.8%. The director of the establishment predicted before the test was made that the shrinkage would be *ca.* 10%, evidently a round number in his mind. The Atlantic Terra Cotta Company of America claim that their products shrink in the proportion of 13 inches to 12 inches, a 7.7% shrinkage.

<sup>7</sup> For clay bedding of the terracotta tiles used in the Peiraic Arsenal and in the gallery of the walls of Athens, compare Paton and Stevens, *Erechtheum*, Text, p. 368. It is obvious that a bed of clay required continuous boarding beneath it, and as a matter of fact such boarding is actually specified for the gallery of the walls of Athens. Ancient marble pan tiles, being flat, did not require continuous boarding beneath them; such tiles were supported by the jack rafters and by strips of wood between the jack rafters (cf. Paton and Stevens, *op. cit.*, Plates XVI, XVIII, XXIV). The Erechtheum Building Inscription specified the dimensions of the strips of wood used to support the marble tiles over the main portion of the temple (cf. Paton and Stevens, *op. cit.*, Text, p. 369).



The shrinkage of terracotta raises an uncertainty in regard to the tile standard in Athens. Does the standard prescribe the size of the mould, or the size of the finished tile? It seems to the writer that the officials of ancient Athens would wish to have the finished terracotta tiles as near the size prescribed by the standard as possible, for, in determining the total number of tiles for a "job," the officials could then base their calculations upon exact measurements given by the standard, not upon measurements derived from tiles after they had shrunk indeterminate amounts. In their calculations the officials of course used ancient measures; and, further, it is probable that they used convenient measures. As the following tables show, the sizes of the tiles of the standard can be expressed in convenient measures of the ancient Attic foot of 0.328 m.:—

*Pan tile*

Length	= 3 Attic feet (to within 0.002 m.)
Width	= $1\frac{1}{2}$ " " (exactly)

*Cover tile*

Length	= $2\frac{1}{2}$ Attic feet + 1 dactyl (to within 0.004 m.)
Width at top	= $\frac{3}{4}$ " " (to within 0.001 m.)
" " bottom	= 9 dactyls (to within 0.005 m.)

From the tables it would appear that the dimensions of the tiles of the standard were in Attic feet. If that is so, then the belief that the finished terracotta tiles were to be the same size as the tiles of the standard is strengthened. Furthermore, the manufacturer of the tiles undoubtedly knew more about the shrinkage of clay than the officials, and could determine better than the officials how much bigger the mould should be than the standard. Finally, that the terracotta tiles, after baking, were to be the sizes prescribed by the standard seems to be borne out by one of the curved terracotta pan tiles in the Agora Museum (A 938)—it has almost exactly the dimensions of the well preserved pan tile of the standard (Figs. 2 and 3; Pl. 82, 2).

There is another curved terracotta pan tile in the Agora Museum (A 945), whose dimensions are close to the dimensions obtained by deducting 8.8% from the dimensions of the pan tile of the standard. Also there are two terracotta cover tiles in the Agora Museum (A 1322 and A 1323), which are close to the dimensions of "M" (cf. Fig. 2) after "M" has undergone a supposed shrinkage of 8.8% (Fig. 4). Do these three tiles indicate that the moulds were to be the same size as the tiles of the standard? The arguments which might be based on these tiles in favor of such an idea are feeble when compared to the arguments given in the previous paragraph where the idea was set forth that the tiles of the standard represented the finished terracotta tiles.

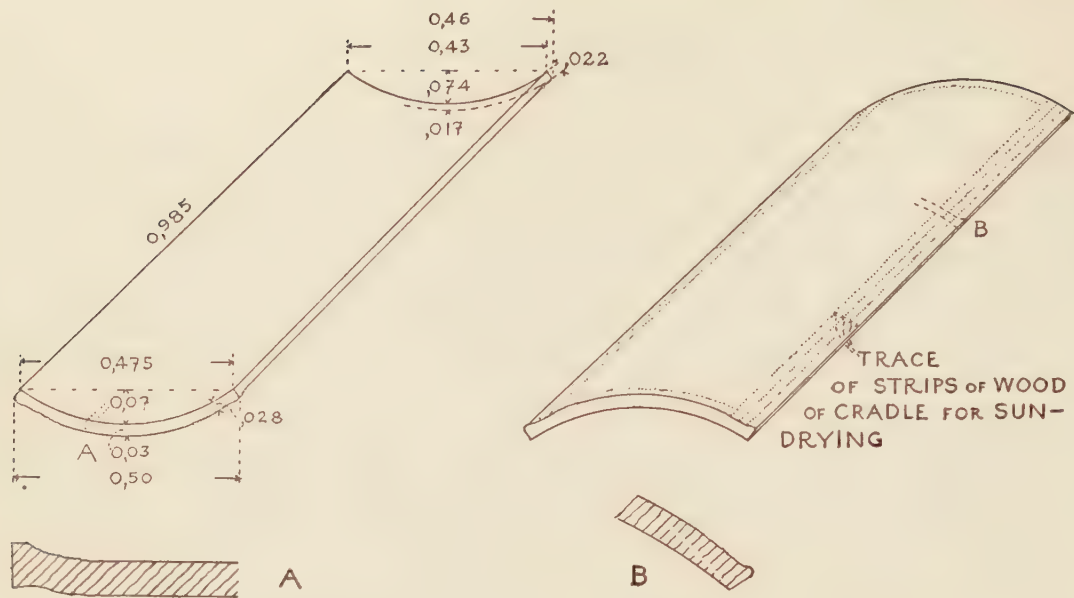


Fig. 3. Terracotta Pan Tile A 938 in the Agora Museum: Isometric Drawing.

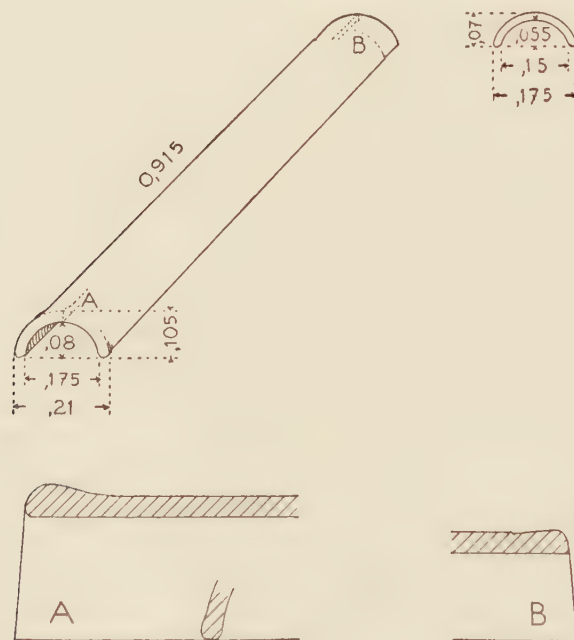


Fig. 4. Terracotta Cover Tile A 1322 in the Agora Museum.



The shrinkage of all kinds of terracotta work must have been well understood by the ancient Greeks. Perhaps some day an ancient inscription will be found which will explain how the shrinkage was taken into account.

Is there enough left of the standard of the Athenian Agora to restore it on paper? To answer this question, it will be necessary to describe the way curved terracotta tiles were used by the ancient Greeks—more specifically, how the ancient Greeks secured durable inexpensive roof coverings which would not leak in violent rain storms. Let us consider the simple case of a hipped roof between two pediments. The architect may well have laid the tiles in the following manner:—

- 1st* A vertical row of pan tiles was tentatively laid, to make sure that there were proper arrangements at the eaves and ridge pole. As the tiles overlapped each other from 0.05 m. to 0.07 m., there could be some play in the distance between the eaves and the ridge pole. When the play did not prove to be sufficient, the tile next to the ridge tile was sawed to fit. Also it is possible that, when in the calculations the length of “ K ” (cf. Fig. 2) did not give good results, the shorter length of the pan tile which went with “ M ” would meet the requirement.
- 2nd* A horizontal row of pan tiles was tentatively laid, to be sure of proper arrangements against the pediments. As there was a space of two or three centimeters between the tiles, there was a considerable play in the distance between the pediments. We are dealing, moreover, with standard tiles, whose joints did not have to line with a motive of the façade of the building (such as a triglyph).
- 3rd* The architect began the final operation by laying a vertical row of pan tiles *in clay*, beginning at either pediment (or, if preferred, at both pediments simultaneously).
- 4th* When a second row of pan tiles had been adjusted, cover tiles were placed over the joint between the two rows of pan tiles. The overlap of the cover tiles was the same as that of the pan tiles, as cover and pan tiles had the same length.

The above gave the architect sufficient data to complete the roofing. The Athenian standard specified both non-wedge shaped and wedge shaped pan tiles (cf. Fig. 2 and Plate 82, 1). Fig. 5 illustrates a roofing of non-wedge shaped pan tiles; Fig. 6, a roofing of wedge shaped pan tiles. It is clear in Figs. 5 and 6 that the cover tiles must have been wedge shaped in the case of both non-wedge shaped and wedge shaped pan tiles, if weather proof joints were to be obtained where *two cover tiles* overlapped each other. Note that the cover tile of the standard is wedge shaped, just as we would expect it to be—non-wedge shaped terracotta cover tiles just do not exist. Theoretically Fig. 6 presents a slightly better solution of the roofing problem than the solution shown in Fig. 5, because, in Fig. 6, both pan and cover tiles are portions of cones and on

that account an element of one can snugly fit against an element of the other. In Fig. 5, on the other hand, the pan tile is a portion of a cylinder and the cover tile is a portion of a cone, and on that account the element of one cannot come snugly in contact with the element of the other. The element of the cone is a straight line, while the projection of that straight line upon the pan tile cuts an ellipse out of the pan tile. But the position of the wedge shaped pan tiles in relation to the roof as a whole is of much greater importance than whether the pan tiles are wedge shaped or not. There is an

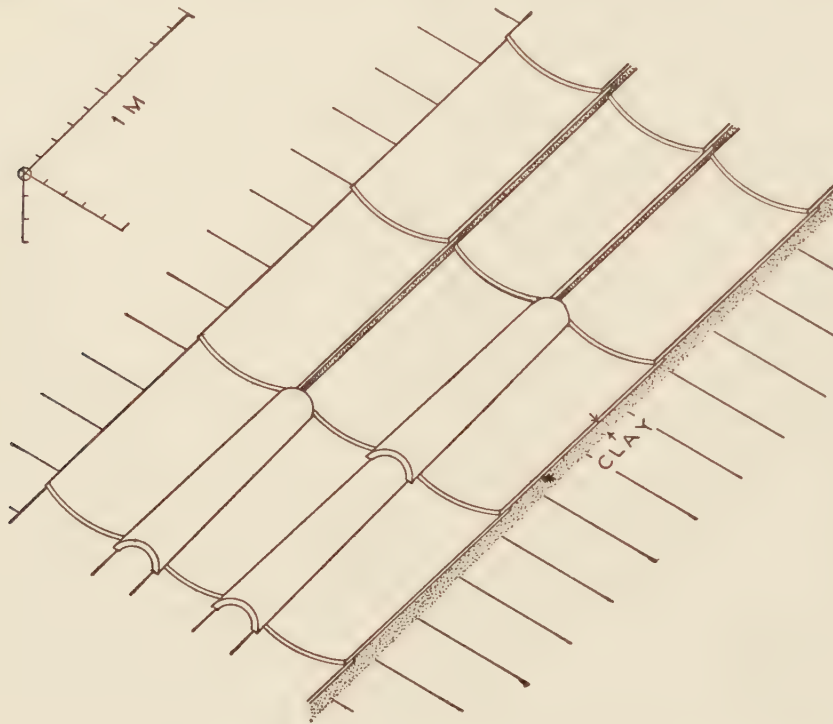


Fig. 5. Roof of Curved Terracotta Tiles; Pan Tiles not Wedge Shaped.

advantageous and a disadvantageous method of overlapping wedge shaped pan tiles, as shown in Fig. 7, "A" and "B." "A" gives the correct overlapping, with the elements of pan and cover tiles in good contact. "B" shows what would happen if the pan tiles were laid with their broad ends toward the eaves of the building; an element of the cover tile would not come in contact with an element of the pan tile but would be directly over a curved line of the pan tile, with the result that in stormy weather rain would be driven under the cover tile and would leak into the clay bedding at "a," Fig. 7, B.<sup>8</sup>

<sup>8</sup> Compare *Olympia: Ergebnisse*, II, Pl. LXXXVII, Fig. 1, where the curved terracotta pan tiles of the Heraion are incorrectly indicated.



Now we are in a position to attempt a restoration of the tiles of the standard.

Did the marble portion of the monument consist originally of two blocks of the same width? This seems likely for two reasons:

(1) The east face of the marble block which is largely missing would then line with the east face of the foundations of the pedestal, at "H" in Fig. 2. To complete the pedestal of the monument we have but to imagine a poros block at "I" with a slot in its top, similar to the slot in the blocks to the east of it.

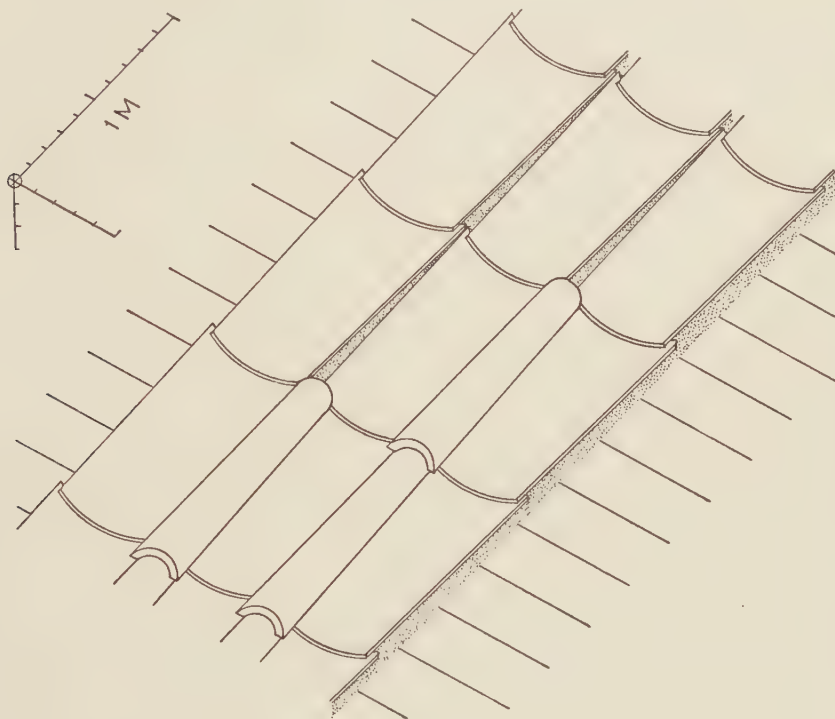


Fig. 6. Roof of Curved Terracotta Tiles; Pan Tiles Wedge Shaped.

(2) A little more than half the bottom of tile "J" is preserved. We are thus sure of the axis of tile "J." We find by measurement that "a" equals "b" (cf. Fig. 2). "J" can be restored as a wedge shaped tile of the same length as the non-wedge shaped tile "K." The eastern marble block of the monument may then be thought of as representing a wedge shaped pan tile with "c" equal to "d" (cf. Fig. 2), and as also representing a cover tile, "L," the same width as cover tile "M." We now have a good looking monument, with the tiles symmetrically arranged (cf. Fig. 2).

Can such a disposition of pan and cover tiles on the standard be rationally explained? We believe that it can. We have seen from Figs. 5 and 6 that wedge

shaped and non-wedge shaped curved terracotta pan tiles of equal length must have the same curved wedge shaped cover tile, and, further, that that cover tile must be as long as the pan tiles. In other words, if wedge shaped tile "J," Fig. 2, is restored with the same length as that of non-wedge shaped tile "K," then cover tile "L" must be wedge-shaped, and must have the same length as "K" and "J." This is satisfactory so far. But what about tile "M," which is considerably shorter than tile "K"—too short, in fact, to represent the length of the cover tile which might go with tile "K" even when "K" represents the mould? The short cover tile "M" can, we believe, be explained. To carve, at considerable expense, representations of wedge shaped and non-wedge shaped pan tiles to go with "M," would be unnecessary when such tiles would differ from "K" and "J" only in length—a length given by "M."

There is a tile in the Agora Museum, A 951 (Fig. 8), which resembles tile "M," for A 951 has almost the same length (0.856 m.) as that of "M" (0.845 m.), but it is *ca.* 0.09 m. narrower than "K." The records in the Agora Museum reveal the fact that A 951 must antedate the standard by about four hundred years, as A 951 was found in a well (on the northwest slope of the Acropolis) which had been filled up in the fifth century B. C. As A 951 and the tile standard (dated as we have seen, in the first century B. C.) are so similar, then we possibly have an indication that this particular type of tile was in use for a number of centuries.<sup>9</sup>

Now for a few remarks about the two cuttings north of the big slot in the top of the poros pedestal (cf. Fig. 2). The cuttings, as has been said, are roughly made. The east cutting measures 0.40 m. x 0.13 m. x 0.09 m. deep (at its deepest place); the west cutting is similar to the east cutting, except that it seems to have been about half as long as the east cutting. There is a drain leading out from the bottom of the east cutting (cf. Fig. 2). There may have been a similar drain for the west cutting, but the poros block is too badly damaged just where the drain should be to assert positively that there ever was a drain (cf. Fig. 2). The drain for the east cutting is wedge shaped, with an angle of about 60° pointing downward. What remains of the drain is well made, and, as it comes on the axis of the rough cutting, the drain may be surely considered as belonging to the same period as that of the rough cutting itself. Whatever went in the rough cuttings could not have been very high, as in that case the objects would have partially hidden the representations of the tiles. One thing seems clear, therefore, and that is that whatever went in the two cuttings was not as important in the composition of the monument as the marble representations of tiles.

<sup>9</sup> The other tiles mentioned in this article were found under the following circumstances:

- A 938 curved pan tile from a well 50 m. north of the northeast corner of the Hephaisteion. The well was filled up in the 2nd century B. C.
- A 945 curved pan tile, from a well on the northwest slope of the Acropolis filled up *ca.* 500 B. C.
- A 1322 and A 1323 curved cover tiles, from an industrial establishment at the west foot of the Areopagus where they had been re-used as a drain. Context of *ca.* 400 B. C.



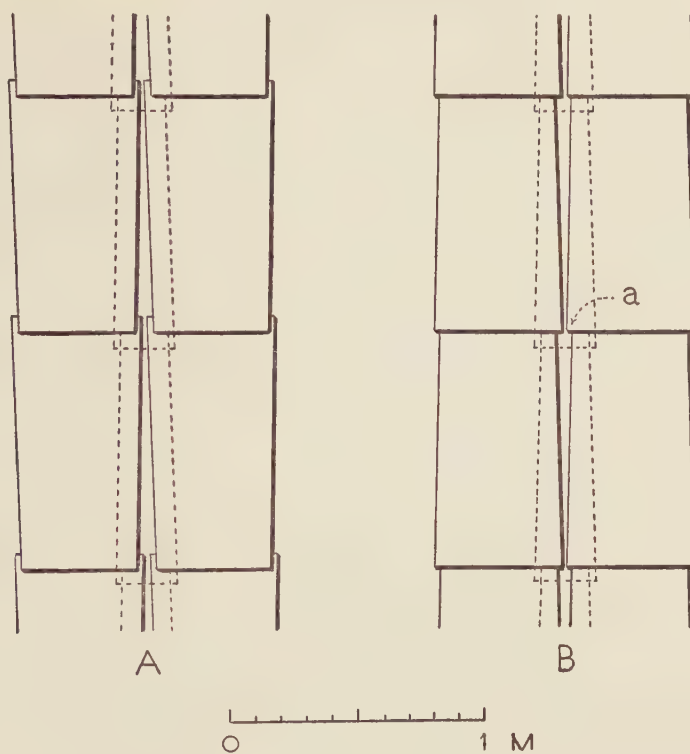


Fig. 7. Correct (A) and Incorrect (B) Overlapping of Curved Terracotta Pan Tiles.

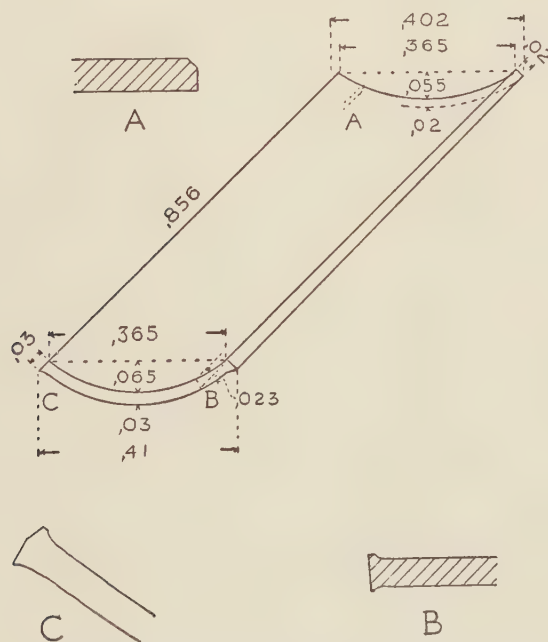


Fig. 8. Terracotta Pan Tile A 951 in the Agora Museum.

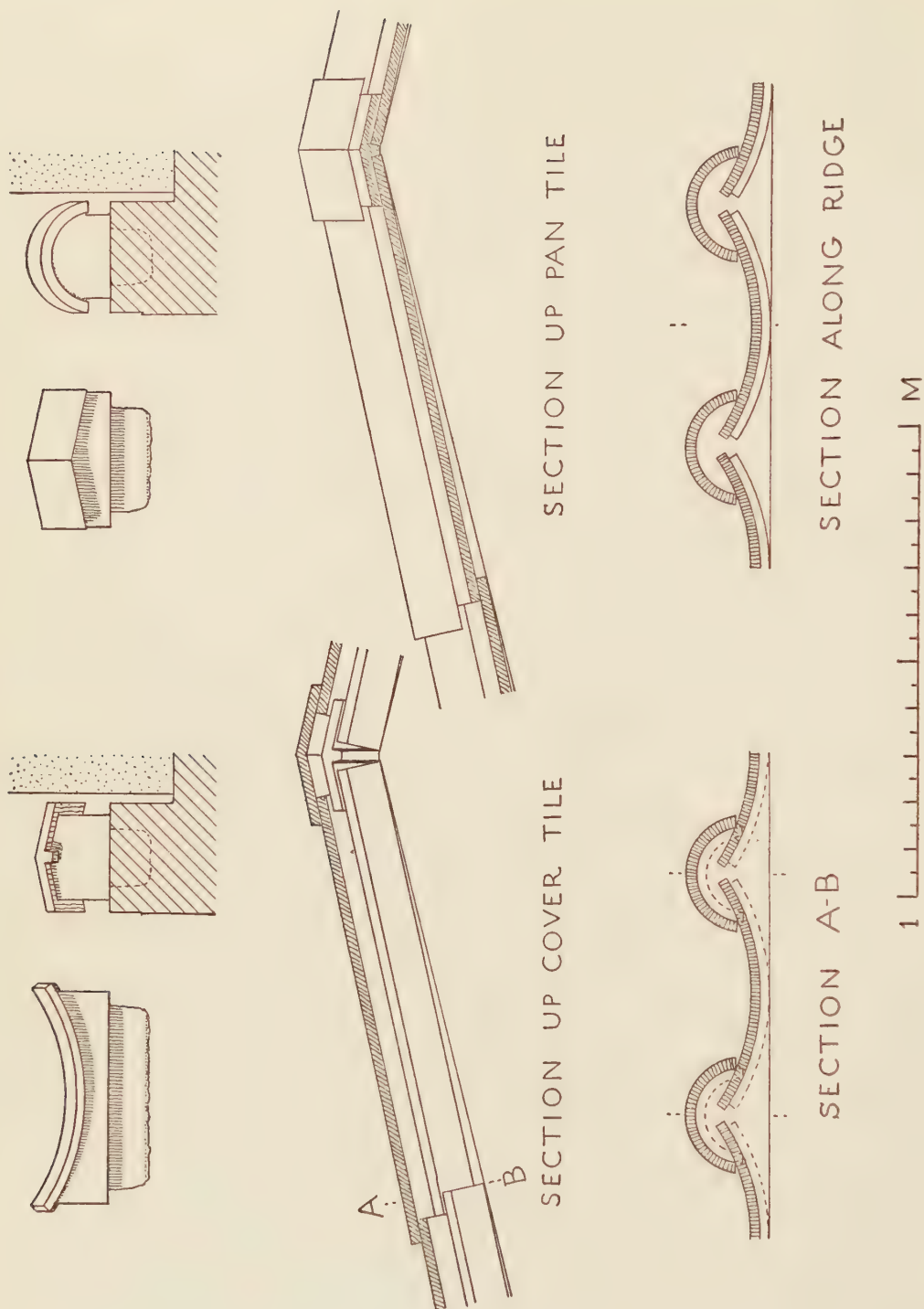


Fig. 9. Restoration of Standard Tiles for Ridge Pan and Ridge Cover Tiles, Derived from a Roof of Pan and Cover Tiles like those of the Standard.



It is difficult to say with certainty what was inserted in the rough cuttings. We would like to find something related to the tiles. We suggest for the larger cutting either a marble or a wooden standard of the ridge pan tile and for the smaller cutting a standard of the ridge cover tile (Fig. 9). As both these tiles were fairly small, their standards may have been kept in the Civic Offices and only brought out during office hours.<sup>10</sup> The drain then becomes useful in carrying off rain water which would otherwise collect in the cutting while the standard was in the office. The bottom of the

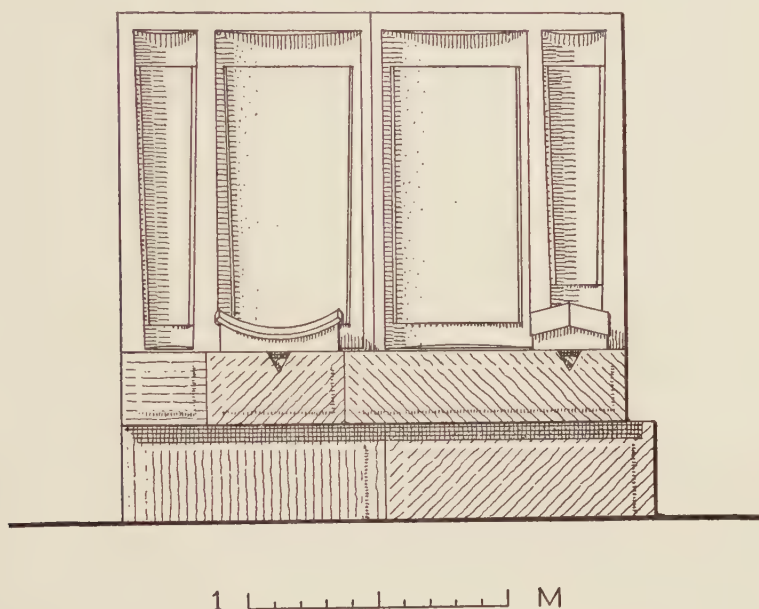


Fig. 10. Restoration of the Tile Standard in the Agora of Ancient Athens.

cutting for " M " in Fig. 2 is somewhat damaged along its edge—a damage which may well have been caused by the operation of putting the standard ridge cover tile into its place on the monument. We may add that the tile standard at Assos had a rough cutting measuring 0.39 m. x 0.18 m. x 0.063 m. deep. The cutting is much like the larger rough cutting of the Athenian standard, except that it has no drain (which can perhaps be explained on the ground that the object inserted in the cutting was not movable).<sup>11</sup> Everything considered, we believe that the small pan and cover tiles of the ridge give us a plausible explanation for the two rough cuttings in the Athenian standard.

<sup>10</sup> Paton and Stevens, *op. cit.*, Pl. XXIV, Figs. 7 and 8 for marble ridge tiles.

<sup>11</sup> F. H. Bacon, *Assos*, p. 71, Fig. 1, and p. 73 for the text accompanying Fig. 1.

We are now prepared to attempt a complete restoration of the tile standard (cf. Fig. 10).

In conclusion, perhaps we may be permitted to remark that, when the writer began to "work up" the tile standard of the Athenian Agora, he believed that only one drawing and not more than two pages of text would be needed. In preparing the article, however, unexpected difficulties presented themselves. Difficulties are severe instructors, but they sharpen our wits and compel us to consider our problems from many points of view.

GORHAM PHILLIPS STEVENS

ATHENS, JUNE, 1949.



# THE LEASES OF THE LAUREION MINES

(PLATES 83-97)

DURING the excavation of the Athenian Agora seventy-five fragments of the *poletai* inscriptions which record the leases of the silver mines at Laureion and the sale of confiscated property have been found. Two have already been published in *Hesperia* (V, 1936, no. 10, pp. 393-413, and X, 1941, no. 1, pp. 14-27). Eight fragments of this same series, all also found in Athens, are published in *I.G.*, II<sup>2</sup>, 1582-89. These previously published pieces have been included in the numerical series of texts here, which is arranged chronologically in so far as possible, and the data from them included in the index and chart.

Amazingly few facts are known about the Laureion mines, so generally, and undoubtedly correctly, believed to have played a very important part in the rise and supremacy of Athens. What revenue did Athens get from them and how and when was this revenue collected? How were they administered? What was the term of the lease? What is the meaning of the different classifications? Who were the men who leased the mines?

Any information that can be gained from these new texts is most welcome. It will be limited, by the inscriptions themselves, to the problems of the leases in the fourth century. All generalizations and conclusions are most tentative, based on the limited evidence now available from these very fragmentary texts. One or two relatively complete stelai from the third quarter of the fourth century, with dated heading preserved, would provide positive solutions to many questions and quite possibly solutions different from those suggested here. This warning is intended to take the place of the many qualifying phrases that otherwise must have been included below.

The most useful general work on the Laureion mines is *Les Mines du Laurion dans l'Antiquité* (Paris, 1897) by E. Ardaillon. This is a comprehensive study of the mines from all angles, including history, geology, mining methods, legal procedures, etc. New evidence from the inscriptions has, however, made the work somewhat out of date on the questions of the fourth century leases.<sup>1</sup>

<sup>1</sup> Ardaillon includes most of the relevant material from earlier studies, of which the two most comprehensive are Boeckh, "Über die Laurischen Silberbergwerke," in *Abhandlungen Ak. Berlin*, 1815, pp. 85-140 and A. Cordella, *Le Laurium*, 1871.

The more recent publications include: K. Fitzler, "Steinbrücke und Bergwerke in Ptol. und Röm. Ägypten," *Leipziger Hist. Abhandlungen*, 1910, XXI, pp. 13-15; Oikonomos, *Ath. Mitt.* XXXV, 1910, pp. 274-322, the original publication of *I. G.*, II<sup>2</sup>, 1582, with full commentary and discussion; Orth, in P. W. K., *R.E.*, Suppl. IV, 1924, s. v. Bergbau; Ernst Schönbauer, "Beiträge zur Geschichte des Bergbaurechts," *Münchener Beiträge zur Papyrusforschung*, XII, 1929, 13-31;

Curiously enough the only two stones with dated headings preserved, No. 1 of 367/6 and No. 34 of 307/6, roughly represent the limits of the period to which the inscriptions are to be assigned. At least one stele preceded our No. 1, but perhaps only one, for the renewals of leases are there recorded simply ἐκ τῆς στήλης without an archon's name to tell which stele is referred to. In the later texts (see 13, 16, 18, 19, 20), renewals are always recorded ἐκ τῆς στήλης τῆς ἐπὶ — — ἄρχοντος. At the other end, the latest fragments can be dated by their letter forms to the end of the fourth or beginning of the third century.<sup>2</sup> The single column non-opisthographic stelai, with relatively few leases (such as 1, 2, 3, 28, 34) are found at the beginning and end of the series, whereas the large opisthographic stelai with several columns to each face (13, 14, 15, 16) can all be dated in the third quarter of the century. Thus the stones themselves, fragmentary as they are, give a clear picture of the rise and fall of the mining industry at Laureion in the fourth century. The industry was slow in recovering after the Peloponnesian War and the disastrous escape of the slaves, on whom the mining operations were dependent; it flourished in the years of attempted recovery following the Social War, and then declined sharply at the end of the century when the gold released by Alexander's conquests brought a reduction in the value of silver.<sup>3</sup>

The absence of inscribed fragments of mining leases from other periods<sup>4</sup> does

George M. Calhoun, "Ancient Athenian Mining," in *Journal of Economic and Business History*, III (1931) pp. 333-361, a useful summary of recent material; Arnaldo Momigliano, "Sull' Amministrazione delle miniere del Laurio," in *Athenaeum*, Pavia, n. s. X, 1932, pp. 247-258; M. Cary, "Sources of Silver for the Greek World," in *Mélanges Glotz*, I, 1932, pp. 133-142; Ulrich Kahrstedt, *Staatsgebiet und Staatsangehörige in Athen*, 1934, pp. 19-31, 49-58.

<sup>2</sup> The latest specific reference to the poletai, apart from the lexicographers who clearly derive their information from the fourth century orators and Aristotle, is in their record of 307/6, No. 34 below (*I.G.*, II<sup>2</sup>, 1589). It seems not impossible that some time in the first half of the third century with the decline in the mining industry and the cessation of the inscribed records of the leases the office passed out of existence and that the other half of their job, the sale of confiscated property, was handled by some other officials.

<sup>3</sup> See Ardaillon, *op. cit.*, pp. 150-158, for full references and discussion, and Cary, *Mélanges Glotz*, I, pp. 139-142. It may be noted that the marked increase in the number of leases falls in the period in which Euboulos was the dominant financial adviser, ca. 354-340, rather than in the time of Lykourgos, 338-326. No basic change in the methods of leasing the mines, however, is found between 367 and 307 (the two dated headings). Therefore if the fourth century revival is due to the financial planning of any one man, Kallistratos of Aphidna, dominant between 373 and 366, might be suggested. (cf. [Aristotle], *Oecon.*, II, 1350 a, for his financial reforms in Macedonia). There is no evidence that the proposals made in Xenophon's *Πόροι*, iv (see below, p. 203), were put into effect.

<sup>4</sup> In Attic inscriptions of the fifth century I have found only two references that may apply to the Laureion mines. Both the Parthenon and Propylaia building inscriptions list receipts from the treasurers of the Hephaistikon from Laureion: [παρὰ ταμ]ίων [ε]λεφα[ι]στικῶ ἀπὸ Λαυρε[ῖο — —] (*I.G.*, I<sup>2</sup>, 347, line 15; 348, line 60; and 366, line 14). The Hephaistikon is probably a mine (cf. [Ἡφα]ίστιακ[όν] in No. 8, line 14), but possibly a sanctuary (cf. Dinsmoor, *A.J.A.*, XXV, 1921, p. 239, and Kahrstedt, *op. cit.*, p. 51, note 3). The second reference is in a fragmentary decree *re*



not mean that similar methods of leasing the mines were not used both earlier and later.<sup>5</sup> It seems clear however that it was only in the fourth century that the records were inscribed on marble stelai and set up in the Agora at Athens. The provenience of the inscriptions suggests that these stelai must once have stood near the Bouleuterion and the Tholos, probably either in the open square just south of the Bouleuterion or in the area to the east of the Tholos.<sup>6</sup> The functions of the poletai were closely connected with the Boule,<sup>7</sup> and their records might logically have been put up near the Bouleuterion.

### *Form of Record*

A separate stele was set up each year by the poletai at the end of their term of office, recording the mines leased and the confiscated property sold.<sup>8</sup> Wherever both are found on the same stele, the text is divided by subject matter. On No. 1, the sale of confiscated property precedes the leases of the mines; in Nos. 13, 14, and 16, the sales follow the leases.<sup>9</sup>

money and banking of ca. 423/2, *Hesperia*, XIV, 1945, pp. 119-122, in which lines 10 and 11 have been restored: [--- τὸς δε πρυτάνες τῆς Αἰ]αντίδος πρυτανείας [γνόμεν ἐχσενεγκέν περι τὸν μετάλλον τὸν ἐ]πὶ Λαυρείοι ---, and the suggestion made that it was the law (line 8) regulating the mines about which the prytaneis were to take action. Unfortunately no other trace of this law or the action taken thereon has been identified.

<sup>5</sup> The boast of the sausage seller in Aristophanes, *Knights*, line 362, “ὠνήσομαι μέταλλα” suggests similar leases at least as early as 424 B.C.

<sup>6</sup> Fifty-seven pieces, representing 25 of the 32 stelai of which fragments have been found in the Agora, are from this general region (sections B and Z). Twenty-three pieces, assigned to six stelai (2, 4, 11, 13, 16, 34) are from the Bouleuterion Square. No. 13 was clearly broken up there, where all but one of the 19 fragments were found; the two joining pieces of 13d were in the foundation packing for the Fountain House built on the south side of the Square in the time of Augustus (*Hesperia*, Suppl., IV, pp. 102-103). Nos. 4, 13m, 13n, and 16b, were used in the Screen Wall at the south and west of the square, dating from the first century A.D. (*ibid.* and *Hesperia*, VI, 1937, p. 168). Fourteen pieces assigned to eight stelai were found east of the Tholos, 5, 6, 12, 16, 20, 23, 29, 31; one of these, near the northwest corner of the Middle Stoa, was in a context of the end of the fourth century, and five were in late Roman contexts. The complete stele, No. 1, was found under the floor of the Tholos in a context of the late fourth and early third centuries. No. 17 was found further south among the working chips for the Propylon of the Tholos Precinct, which dates from the time of Augustus (*Hesperia*, Suppl. IV, p. 121).

<sup>7</sup> See Aristotle, *Ἀθ. Πολ.*, 47, 2. The Boule may have had to approve each mining lease. The text 47, 2 is somewhat ambiguous and the phrase καὶ κυροῦσιν ὅτῳ ἂν ἡ βουλὴ χειροτονήσῃ may apply either to the preceding clause, or to the one that follows on mining leases (see below, p. 199).

<sup>8</sup> Sales of confiscated property are recorded on the same stelai with the mining leases in Nos. 1, 7, 13, 14, 16, and probably Nos. 17, 24, and 30. The hitherto unpublished pieces form a very small part of the new material and will be discussed only in the commentary on the texts.

<sup>9</sup> These three are incomplete opisthographic stelai with more than one column to a face. In No. 16 the text dealing with confiscated property is in the two right-hand columns of one face; the two other columns of this face, in so far as the text is preserved, deal with the mines. The same is

In two of the four preserved headings, after the archon, the poletai are listed by name (Nos. 1 and 24); in the other two (Nos. 34 and 37) from near the end of the century their names are clearly omitted. In the only complete record (No. 1 of 367/6) the leases are arranged in chronological order according to the prytany, and in that year mines were leased in every prytany except the sixth, eighth, and tenth. A prytany date is preserved in three other texts including that of 307/6.<sup>10</sup> Thus it seems probable that throughout the century mines were leased at various times throughout the year. The day of the month, the second, is also given in the record of 307/6 (No. 34, lines 2-3, 11-12). The evidence from the large stelai of the 'forties and 'thirties suggests, however, that the bulk of the leases may have been made at the beginning of the year in the first prytany.<sup>11</sup> On a given date of registration the normal practice seems to have been for the poletai to list first the higher priced mines (probably all of these were renewals) and then the new leases district by district. There are a few exceptions, but a glance at the chart will show this to be the usual procedure.

### *Typical Lease*

A typical record for the individual mine includes the name of the lessee (or purchaser),<sup>12</sup> the price, sometimes the name of the man who registers the mine, the name, place, and classification of the mine, and it lists the boundaries on the four sides. It also often includes the name of the owner of the property in which the mine was situated and notes the presence (and rarely the absence) of a marker. For example, lines 6-13 of No. 20 read: <sup>13</sup>

At Thalinos, Thoutimides of Sounion registered from the stele of Euboulos, the *ergasimon* mine Artemisiakon in Nape (which is) in the property

true of the three legible columns of the other face. In Nos. 13 and 14 the records of confiscated property are from the right-hand column of one face. Thus I have called these face B in each case, and assigned these texts to the last columns of the stelai.

<sup>10</sup> No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 61-62), first prytany; No. 32 (= *I.G.*, II<sup>2</sup>, 1587, line 10), second prytany; No. 34, lines 2-3, 10-11, first and third prytanies.

<sup>11</sup> In No. 16, the heading introducing the *ergasima* mines leased in the first prytany is in the middle of the third column. Six and a fraction of the eight columns of this stele recorded mining leases. At least two and a half columns would thus contain leases made in the first prytany. The absence of preserved prytany date in Nos. 13, 14, 15, 18, 19, and 20 suggests that dates did not appear frequently and therefore perhaps only a few are named in each record.

<sup>12</sup> I have consistently translated the Greek *ωνητής* as lessee rather than purchaser. There is no doubt that the mining rights were state-owned and the mines leased for a given period of years (see below). See Ardaillon, *op. cit.*, pp. 169-170, for other examples of the use of words denoting buying or selling, where the instrument involved is a lease.

<sup>13</sup> I have not indicated the restorations in the translation. The fact that no record could be found (as an example of the normal lease) which was not partly based on restorations is an indication of the incompleteness of these texts.



(ἐδάφη) of ---, of which the boundaries are, at the north, the Artemisiakon mine which is being worked by ---, at the south, the gully which runs from Nape and the workshop of Epikrates, at the east, the property (χωρία) of Teleson and his house, at the west, a workshop, the lessee, Thoutimides son of Phantias of Sounion, (the price) 150 drachmai.

This lease varies from the norm in apparently having two place names Thalinos and Nape and in the omission of the patronymic of the registrant in the first line.

The order of the items usually included in the first half of the lease (the name of the mine, the place, the classification) varies not only in the leases recorded on different stelai, but between one lease and another on the same stele. In the earliest text, No. 1 of 367/6, the records are somewhat simpler and briefer with registrant and classification both regularly omitted.

### *Names of Mines*

The individual mines were named for a divinity, a hero, an operator, a deme or perhaps its mythical hero, *e. g.*, Artemisiakon, Archegeteion, Diphileion, Kerameikon, Hagnousiakon, etc. The endings -eion and -kon are the neuter forms of the common adjectival endings -eios and -(i)kos. By the fourth century they have no specific meaning beyond an indication of general relationship.<sup>14</sup> As used in the mine names they probably imply "under the protection of," "owned by," "discovered by." From our distant point of view, these names seem to have little significance, for the same name is clearly used for different mines, both in the same district and in different districts. Note two Hermaikons at Laureion recorded on the same stele, and two Archegeteions, one at Thorikos, and one at Besa, and Artemisiakons at Thorikos, Thrasymos, Sounion and Anaphlystos.<sup>15</sup> Artemisiakon seems to have been the favorite name. Perhaps there was an early very successful mine of that name. Perhaps Artemis was believed to favor miners.

### *Location*

The location of each mine is given usually in relation to the nearest town or village.<sup>16</sup> It seems clear that the ἐπὶ Σουνίῳ, Θορικοῖ, etc., of the texts refer to towns

<sup>14</sup> Chantraine, *La Formation des noms en grec ancien*, pp. 60, 391.

<sup>15</sup> No. 16 (= *I. G.*, II<sup>2</sup>, 1582, lines 62-69, 75-83); No. 1, lines 65-67, 72-76; No. 6, lines 8-12 *et al.*; No. 16 (= *I. G.*, II<sup>2</sup>, 1582, lines 142-144); No. 13, lines 61-66; No. 16 (= *I. G.*, II<sup>2</sup>, 1582, lines 112-117).

<sup>16</sup> Cf. *Hesperia*, X, 1941, pp. 28-30. John Young also suggests that the place named in the texts may at times be the place of registration rather than the approximate location of the mine. This hypothesis would explain the last record on No. 1, which records a mine at Sounion at Besa. The roads and property named in the boundaries make it clear however that in most of the leases

rather than demes, inasmuch as no one of the demes in the district (notably Φρέαρροι) which did not have a corresponding town name is ever given as the location of a mine, whereas other towns such as Laureion, Thrasymos, Aulon, and Maroneia,<sup>17</sup> which must have belonged to one of the demes, are given as locations.

The items describing the precise position of each mine are largely self-explanatory. The stele named in most of the texts is probably a marker, like that used on mortgaged property. Eight of these markers<sup>18</sup> of mines have been found. Some have only the name of the mine; others name the lessee as well.

The owner of the property in which the mine was situated is normally given. This property is called χωρία in No. 1<sup>19</sup> and ἐδάφη in the other texts. It is doubtful if there is any very real distinction between the two words as used in these texts. χωρίον and χωρία do, however, continue to be named in the boundaries, after ἐδάφη has become the word regularly used to describe the property in which the mine lay. One might suggest that χωρίον has a somewhat rural agricultural connotation and for this reason the more general word ἐδάφη<sup>20</sup> came to be used in the mining district where much of the property must have been non-agricultural.

### *Boundaries*

The most frequent items named in the boundaries of the mines are workshops, ἐργαστήρια, and other private property. A workshop is named or can be restored in 83 cases, and other private property in about 72 cases.<sup>21</sup> It is not surprising to find the workshops heading the list, for the separation of the ore from the extraneous stone would naturally be made as close to the mine as possible to avoid transportation costs. The impure ore, galena, was broken up into small pieces, and then placed on washing tables in which the heavier ore would be deposited and the lighter impurities carried away by the flow of water. Many of these washing establishments are still extant in the mining district.<sup>22</sup> The smelting of the ore, on the other hand, was

in which Βησῆσιν, for example, is found, the mine was in the region of Besa. Since there is only that one record of a double location in which the two places are mutually exclusive (see Chart), I assume that to be an exception or error.

<sup>17</sup> Mines at Maroneia and Aulon are described ἐν Μαρωνείαι and ἐν Αὐλῶνι, which suggests that they may have been district names also, but since roads leading to or from them are named I assume that there was at least a village center.

<sup>18</sup> *I. G.*, II<sup>2</sup>, 2634-2638; *Ath. Mitt.*, LXII, 1937, pp. 11-13, nos. 11-13.

<sup>19</sup> The use of ἐν τοῖς χωρίοις in No. 1, line 67, makes it fairly certain that the word χωρίοις is the one to be supplied in the other records on this text which read ἐν τοῖς Δημοφίλο, etc.

<sup>20</sup> Cf. Demosthenes, XXVI, 11, and Isaios, XI, 42, where the word is used to describe property in general; it is used by Isaios for property which included both land and houses.

<sup>21</sup> This includes property described as ἐδάφη (when named in the boundaries) or as χωρίον, the occasional house, and also the examples of a proper name in the nominative case.

<sup>22</sup> Ardaillon, *op. cit.*, pp. 63-74. The mills, figs. 19 and 22, pp. 61 and 69, which he illustrates as examples of mills in which the ore was broken, seem rather to be ordinary flour mills.



presumably concentrated in a relatively few places, requiring not only special metallurgical knowledge, but also a more elaborate establishment with furnace and chimney.<sup>23</sup> A smelting furnace, *κάμινος*, is named only six times in the boundaries of the mines.<sup>24</sup> Since the proportion of *ἐργαστήρια* to *κάμινοι* in the texts fits well with the probabilities, we can assume that in most cases the *ἐργαστήριον* was a washing establishment.<sup>25</sup> Wherever possible each mine or cutting would have had one beside it.

Mines are named as the boundary of another mine in only 33 cases. This relatively low number of directly adjacent mines is not surprising, if, as seems probable, most of the "mines" were small units, probably single cuttings.

Lastly, natural features of the landscape, such as roads, gullies, and occasionally a hill, are given as the boundaries of a mine. Many details of considerable topographical interest are found in this new material, particularly in that related to the roads. A careful survey of this region, with this new evidence in mind, might make it possible to establish the definite location of some of the towns and villages, roads and gullies, mines and property, named in the texts.

There are no two records preserved in the inscriptions that can with certainty be said to refer to the same mine. Undoubtedly there are repeats that are not recognized as such. This is partly due to the incompleteness of the texts and the uncertainties in restoration. The minor variations in the form of the records and the use of different abbreviations for the same word on the same stone<sup>26</sup> make the restorations in these texts, in spite of the *stoichedon* line, even more suspect than those on many other types of inscriptions.

There are other factors that make it difficult to recognize repeats. Not only was the same name used for different mines but also, if one assumes that many of the mines were leased as a speculation and worked perhaps for only one term, the adjoining land, whose chief value must have been for use in connection with the mines, may have been bought and sold at short intervals. Thus the workshop of Lysitheides in one text may be the same as that of Phanostratos in another text.

The difficulties of positive identification of repeats are best pointed up by a glance at the seven records of mines called Artemisiakon at Thorikos.<sup>27</sup> Property of Lysi-

<sup>23</sup> See Ardaillon, *op. cit.*, pp. 59-89, for a description of the different steps in extracting and refining the ore.

<sup>24</sup> No. 1, line 54; No. 5, line 85; No. 13, lines 11 and 57; No. 19, line 25; No. 32 (= *I.G.*, II<sup>2</sup> 1588), line 6. A furnace is named once on a mortgage stone, *I. G.*, II<sup>2</sup>, 2750. In only three cases is the location preserved, one at Laureion, one at Thrasymos, and a third at Maroneia.

<sup>25</sup> See, however, Demosthenes, XXXVII, 28; the implications of the text are that the silver was smelted from the ore in the much mortgaged *ergasterion* which is the subject of the oration. If true, it is perhaps an exception. The *κεγχρέων* named in the same oration (§ 26) is not to be confused with the smelting furnace; it is the place where the ore was crushed or broken and so probably to be associated with the washing establishments. Cf. Ardaillon, *op. cit.*, p. 62.

<sup>26</sup> Cf. on No. 20 *ἡλίου δνομέ*: in line 5; *δνομένον* in line 12; and *πρὸς ἡλίου δνο*: in line 16.

<sup>27</sup> No. 6, lines 8-12; No. 16 (= *I.G.*, II<sup>2</sup>, 1582), lines 135-139; No. 18, lines 71-75; No. 19,

theides of Kikynna (or his children) is named in three, the workshop of Pheidippos in three, and a road or roads in several. It seems probable that at least two or three of the records are of the same mine, but since identical boundaries are not found in any of them, one cannot be certain.

That partial identity of boundaries is insufficient for the identification of two mines is clear from a glance at two leases recorded on No. 1, lines 44-47, 79-81. Both are unnamed mines at Sounion, both are leased by Pheidippos of Pithos, both are in the property of the children of Charmylos, both bounded on the south by property of Leukios of Sounion, and on the north by property belonging to a man from Aigilia, Pyrrakos in one, and Kleokritos for the other. The east and west boundaries are not given. If these two records had been found on separate pieces, instead of on the same stele, the identity of the mines would have seemed certain.

Thus until further evidence is found, either from a survey of the district, or from the discovery of more and better preserved texts, one cannot decide whether two records in which some of the boundaries correspond are of the same mine or of two separate mines near each other.

#### *Classification, Form of Registration, Length of Lease, Prices.*

The leases can be divided into two types. In the first, the smaller group, the phrase *ἐκ τῆς στήλης* or *ἐκ τῆς στήλης τῆς ἐπὶ — — ἄρχοντος* is always included, and in the second it is regularly omitted. In the records of the third quarter of the fourth century, these mines registered or brought forward from an earlier stele are classified as *ergasima*, and this word is never used without a reference to an earlier stele. In the record of 367/6, No. 1, no classifications are named, but the five leases there recorded *ἐκ τῆς στήλης* are certainly to be included in the group of *ergasima* mines. In the second type of lease in which an earlier record is not mentioned, the mines are classified as *anasaxima* or *palaia anasaxima* (again absent in No. 1 and probably in Nos. 2 and 3). A *kainotomia*, new cutting, is named in five of the late texts of which none can be earlier than the fourth quarter of the century. The texts are too fragmentary to indicate what type of lease was used, and except in one case too fragmentary to show whether the *kainotomia* was a mine being leased or a cutting named in the boundaries of another mine.

Before discussing the meanings of these terms (which I have called classifications) it will be well to look at the different methods of registration and at the prices.

Three forms of registration are used:

A. No registrant is named and the verb *ἀπεγράψατο* or *εἰσήνευκε* is omitted.

lines 4-9; No. 32, (= *I.G.*, II<sup>2</sup>, 1587), lines 17-19; and probably No. 20, lines 25-30; No. 29, lines 2-9.



- B. Both a registrant and a lessee are named and are the same person. A variant of this form is found in two texts, Nos. 14 and 15, in which a registrant and verb are present, but a lessee as such is not named and the price is introduced by the word *τιμή*.
- C. Both registrant and lessee are named and are different persons.

Form A, in which no registrant is named, is the only one used in the early stele of 367/6, No. 1 (and perhaps also in No. 3). There it is used both for the five leases "from the stele," and for 12 leases for 20 drachmai each. Since in the later texts both the *ergasima* mines and those leased for 20 drachmai are registered with form B, it can be assumed that here the absence of registrant is equivalent to the form in which registrant and lessee are the same. But in the later texts this form is also used for some of the higher priced *anasaxima* and *palaia anasaxima* mines.

Form B, in which registrant and lessee are both named and are the same, is used for *ergasima* mines in the more developed phraseology of the third quarter of the century. In the single exception, No. 18, lines 18-22, where registrant and lessee are different, a previous operator is named in the text, a fact which suggests some irregularity in this renewal (see below, commentary on No. 18). It is also used for *palaia anasaxima* mines (and one *anasaximon*) leased at 20 drachmai. Note that in no case in which a price of 20 drachmai is preserved are the registrant and lessee different. The only examples of *anasaxima* mines registered and leased by the same person at a price higher than 20 drachmai are in one of the later texts, No. 32.

Form C, in which registrant and lessee are different, is not used for *ergasima* mines, save for the one exception noted above, but is found in the records of mines classed as *anasaxima* and *palaia anasaxima*. Note that the prices correspond closely to those of the *ergasima* mines. The registrant in this form must be the man who had the former lease.

A comparison of the methods of registration with the classifications and the prices paid thus suggests that a mine originally registered as *palaion anasaximon* if re-registered by the same person would be classed as *ergasimon*, if by a different person usually as *anasaximon* but occasionally still as *palaion anasaximon*.<sup>28</sup>

<sup>28</sup> There is only one certain example of a mine registered and leased by the same person listed as *anasaximon* (No. 16 = *I.G.*, II<sup>2</sup> 1582, lines 123-129). This could easily be explained as an accidental omission of *palaion* on the part of the stone cutter. See also No. 26, lines 1-7, where normal restorations suggest another example of the same registrant and lessee for an *anasaximon* mine. There are two certain examples of mines listed as *palaia anasaxima* leased for 150 drachmai which are apparently new leases of a concession already granted, and in one of which the registrant and lessee are different (No. 16 = *I.G.*, II<sup>2</sup>, 1582, lines 45-51, 56-60). There are four other cases in which restorations suggest that *palaion* was included in leases of this group: No. 9, lines 10-16; No. 10, lines 6-14; No. 18, lines 33-37; and No. 20, lines 53-58.

The distinction between *ergasimon* and *anasaximon* thus seems to be only a question of whether the same or a different man continues the work on the mine. These two differ from a *palaion anasaximon* in that work has already been started.

The word *ergasimon* seems to be used in its active sense, i. e., applied to a mine that is working, that is a going concern, rather than in its more common passive sense "capable of being worked."<sup>29</sup>

*Anasaximon* is found only in these texts and the meaning is not known. The word is defined in Liddell, Scott and Jones, *Greek-English Lexicon*, as "a mine that is reopened and worked."<sup>30</sup> A *palaion anasaximon* mine would then be an "old mine that is re-opened" (or is to be re-opened). If, however, *palaion anasaximon* was normally used only in new leases, and *anasaximon* in renewals in which the lease changed hands, a broader meaning for the term is not excluded. It need not be limited to the old mines, but might be applied to any mine on which work was being done. What the word actually meant in the mining jargon of the fourth century we do not know; it apparently could be applied to any of the mines that were being operated in the third quarter of the century. The fact that *anasaxima* mines and a new cutting, *kainotomia*, appear on the same stone, No. 32 (= *I.G.*, II<sup>2</sup>, 1587, lines 5-6, 13) does not necessarily mean that the two terms were mutually exclusive. A lease in which the mine was described as a new cutting would presumably be a new lease, and registered in the same way as the new leases of *palaia anasaxima*. When the original lease came up for renewal the classification would change just as in the other leases, probably to *ergasimon* if the same man renewed it, and possibly to *anasaximon* if another operator took over.

The meaning of *kainotomia* at least seems clear, "a new cutting," that is, a new mine. Both inscriptions and literary references suggest that very few new mines were opened during the second and third quarters of the fourth century. In the inscriptions the word is found only in five of the late texts.<sup>31</sup> Few or no new mines were being opened in the 'fifties (Xenophon, *Πόροι*, iv, 27-28). In Hyperides' Fourth Oration (which is dated to the period of 330-326 B.C.) we are told that αἱ καινοτομίαι, πρότερον ἐκλελειμμέναι διὰ τὸν φόβον, νῦν ἐνεργοί (36). The statement is part of a rhetorical plea praising the jurors for the wisdom shown in past cases in which mine operators

<sup>29</sup> L. S. and J., *Greek-English Lex.*, *sub. v.*, second meaning; cf. *I.G.*, II<sup>2</sup>, 2498, line 17, for a comparable contemporary use.

<sup>30</sup> Kahrstedt, *op. cit.*, p. 54, suggests that the *anasaxima* are pits or shafts, and the *ergasima* open workings; the present texts however suggest a distinction in type of lease rather than in type of working. For further discussion, see Oikonomos, *op. cit.*, pp. 300-301, and Kirchner, *I.G.*, II<sup>2</sup>, commentary on 1582.

<sup>31</sup> No. 28, line 6; No. 32 (= *I.G.*, II<sup>2</sup>, 1587), lines 5-6; No. 33, line 2; No. 35, line 3, and No. 38, lines 1 and 8. The word is also found on two boundary stones, *Ath. Mitt.*, LXII, 1937, pp. 11-12.



had been acquitted of false charges brought by sycophants, and therefore somewhat suspect. Yet there seems to be some truth in it, for it is just about this same time that new cuttings first appear on the inscriptions.

Three other kinds of "cuttings" appear in the texts: *κατατομή*, *ἐπικατατομή*, and *συντομή*.<sup>32</sup> They never are the subject of a lease themselves, but are named in the lease of a mine, *μέταλλον καὶ κατατομήν*. We do not know the meanings of any of them. Apparently they are some kind of additional cutting which is specifically named as included with the mine.

The only contemporary account of the mining leases is found in Aristotle's description of the duties of the *poletai*, *Ἀθ. Πολ.*, 47, 2: *μισθοῦσι δὲ τὰ μισθώματα πάντα, καὶ τὰ μέταλλα πωλοῦσι καὶ τὰ τέλη μετὰ τοῦ ταμίου τῶν στρατιωτικῶν καὶ τῶν ἐπὶ τὸ θεωρικὸν ἡρημένων ἐναντίον τῆς [βουλῆς]· καὶ κυροῦσιν, ὅτῃ ἂν ἡ βουλὴ χειροτονήσῃ, καὶ τὰ πραθέντα μέταλλα τὰ τ' ἐργάσιμα τὰ εἰς τρία ἔτη πεπραμένα καὶ τὰ συγκεχωρημένα τὰ εἰς [·] ἔτη πεπραμένα*. There has been great diversity of opinion in the efforts to correlate the classifications found on the inscriptions with those in Aristotle, chiefly due to the uncertainties of the exact meaning of the terms *ergasima* and *anasaxima* and to the conviction that the *kainotomiai* should form one of Aristotle's two groups. With the increased number of texts now available, two types of leases are distinguishable in the inscriptions which clearly must be equated with the two groups given by Aristotle. The *ergasima* mines of Aristotle will of course be the *ergasima* recorded from earlier stelai of the inscriptions; the *συγκεχωρημένα*, those "that have been conceded," i. e., for which concessions are being granted will include both the *anasaxima* and *palaiā anasaxima*, which for most of the period covered by the inscriptions represented the bulk of the leases, and probably the occasional *kainotomia*.<sup>33</sup> Actually the word *kainotomia* does not appear on any inscription that need be earlier than 325 B.C., the *terminus ante quem* for the composition of the *Ἀθηναίων Πολιτεία*.

There is no definitive evidence on the duration of the leases in the texts, for no stone preserves both a dated heading and the record of a renewal in which an archon's name is preserved. According to Aristotle the *ergasima* mines were leased for a period of three years, those that were conceded for a different term of years. Unfortunately the number is illegible on the papyrus. The traces of the letter preceding *ἔτη* are said to resemble either a gamma (3) or an iota (10).<sup>34</sup> Three is excluded since that is the number given for the first category and ten has been restored in many of the editions.

The slight evidence from the inscriptions suggests a term of seven rather than

<sup>32</sup> *κατατομή*: No. 1, lines 53, 72; No. 2, lines 18-19; No. 5, lines 75-76; No. 16 (= *I.G.*, II,<sup>2</sup> 1582), line 70. *ἐπικατατομή*: No. 6, lines 5, 14; No. 16, Face A, Col. II, line 50 and Col. IV (= *I.G.*, II<sup>2</sup>, 1582, line 137). *συντομή*; No. 32 (= *I.G.*, II<sup>2</sup>, 1587), line 15.

<sup>33</sup> Cf. Calhoun, *op. cit.*, p. 354, and Schönbauer, *op. cit.*, pp. 20-21.

<sup>34</sup> Kenyon, Oxford text 1920, *et al.*

ten years for the longer leases.<sup>35</sup> In this case the papyrus reading would have been Z (or Ι).<sup>36</sup> In interpreting the evidence from the inscriptions I have assumed that each stele was the record for one year only, that Aristotle's three year term for the short lease is correct, and that a mine recorded as *ergasimon* on one stele could be either a renewal of a long term lease or of a short term lease (see above).

In the nine renewals of leases from earlier stelai in which a verb is preserved, ἀπεγράψατο "registered" is used four times, εἰσήνευκε "brought forward" five times, and in two of the latter a previous operator or lessee is named. In the two inscriptions in which records with both verbs are preserved they are used for different types of renewals.

In No. 16, in the records of the two leases from the stele of Kallimachos (349/8), the verb ἀπεγράψατο is used. In that from the stele of Theophilos (348/7) the verb is εἰσήνευκε and the former operator or lessee is named. Similarly in No. 19 the first and third leases, which are renewals from the stele of Sosigenes (342/1), have εἰσήνευκε (but no reference to an earlier lessee), and in the second the verb ἀπεγράψατο is used, and the available space makes the restoration of Sosigenes as archon of the earlier stele, mentioned in this lease, impossible.

The sales of confiscated property recorded on No. 16 make 342/1 the most probable date for the stele; an earlier date is precluded and a date more than two or three years later is highly improbable. Further, the stele cannot date from 340/39.<sup>37</sup>

This gives a minimum of seven years for the leases renewed from the stele of Kallimachos, and a probable maximum of eight or ten. Nine is excluded. They cannot be Aristotle's short term leases of three years, and will be his long term lease, in which the mines in the original lease were presumably registered as *anasaxima* or *palaia anasaxima* and are now being re-registered as *ergasima*. Apparently when the classification was changed, the act of recording was considered a new registration, and the same verb was used as for the new leases.

With ἀπεγράψατο tentatively assigned to the long term leases, let us assume that εἰσήνευκε (when used without mention of a previous operator) was used for the short

<sup>35</sup> That the period for the second group was longer than the three years of the first is confirmed by a passage in Hyperides, IV, 35-36: Epikrates who had already worked his mine for three years was brought to trial but acquitted and the dikasts, τὴν ὑπόλοιτον ἐργασίαν τοῦ μετὰλλον ἐβεβαίωσαν.

<sup>36</sup> Blass, in his fourth edition (1903) of the Ἀθ. Πολ., notes that the lacuna before the second ἔτη is somewhat wide and that there may have been a vacant space after the numeral. A zeta would better fit such a space than an iota.

<sup>37</sup> Penalties are being imposed for payments in default due in the ninth prytany of 343/2, and the property of Philokrates of Hagnous is being sold in the fourth month. The trial in which his property was confiscated is dated to the winter of 343/2 (Beloch, *Griech. Geschichte*, III<sup>2</sup>, i, p. 544; Schäfer, *Demosthenes*, II<sup>2</sup> p. 368, note 1). The following year 342/1 would seem the probable date for the sales in both these cases, although a delay of a year or two is not impossible (*Hesperia*, V, 1936, p. 412). In 340/39, the tribe Kekropis held one of the prytanies near the end of the year (*I.G.*, II<sup>2</sup>, 233); since it is named as the first prytany in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 61-62) this cannot be the stele of 340/39.



term leases, i. e. for renewals of records in which the mine had already been classified as *ergasimon* in the earlier record. Since no change of classification was to take place, the record was simply "brought forward." In No. 19 then the two leases brought forward from the stele of Sosigenes will be three year leases, and the stele will date from the year 339/8. The other renewal on this same stone, in which ἀπεγράφατο is preserved, would be a long term lease. The name of the archon from whose stele the lease was registered is limited to 5-8 letters (No. 19, line 10). The names of the archons for 349/8 and 347/6, Kallimachos and Themistokles are both too long. If the stele is from 339/8, a term of ten or eight years is thus impossible. The archon for 349/8 would be improbable anyway since that is the year used in No. 16 for long term renewals. A nine year term was excluded in No. 16. Archias, archon in 346/5, can be restored and the seven year period, seen to be the most probable in No. 16, thus fitted into this text.<sup>38</sup>

In No. 34, of the year of Anaxikrates (307/6), either a seven or ten year period is possible in the restorations on fragment b.

The two records of *ergasima* mines where the former lessee is specifically referred to in the text (No. 16 [= *I.G.*, II<sup>2</sup>, 1582, lines 75-83], and No. 18, lines 18-22) are probably renewals which for some reason came up before the expiration of the original lease. Perhaps the former lessee had died, perhaps he had lost his rights as a result of court action of some sort before his lease had expired.

The sequence for a particular lease would seem to be something like this:

A man wishing to lease a new concession (not necessarily and not usually a new mine) would register it with the poletai giving a description of the mine and its location. If approved by the Boule, the lease would be granted and the man listed both as registrant and lessee. If the mine in question was an old working, it would be classified as *palaion anasaximon* and the price would be 20 drachmai. Towards the end of the century the price for new leases of old workings seems to have risen to 150 drachmai.<sup>39</sup> This original lease would last for seven (possibly ten) years. If at that time the same man renewed his lease, the mine would be classified as *ergasimon*, the term of the lease would be three years, and the price would be 150 drachmai or more.<sup>40</sup> Since the classification of the mine had changed, this was considered a new registration and the same verb was used as in the new leases. If the same man renewed his lease a third time, three years later, there would be no change in classification and the lease would be recorded as "brought forward," not as "registered." If, however, the

<sup>38</sup> So far as the text itself is concerned, either Euboulos (345/4), Lykiskos (344/3), or Theophilos (348/7) could equally well be restored.

<sup>39</sup> See the two examples of *anasaxima* mines registered and leased by the same person of which the price was 150 dr.: No. 32 (*I.G.*, II<sup>2</sup>, 1587, line 19, and *I.G.*, II<sup>2</sup>, 1588, line 8).

<sup>40</sup> 150 is the only price preserved for leases of *ergasima* mines in the 'forties and 'thirties. The higher prices preserved in some of the fragmentary texts, however, are probably for *ergasima* mines. In 367/6 two were leased for 1550 dr. each.

original lessee did not renew his lease and another operator wished to take it over immediately, the first would be named as registrant, and the new man as lessee; the earlier lease would not be specifically referred to in the inscription, the mine would be classified as *anasaximon*, the term of the lease would be seven years and the price might be the same as it would have been had the original lessee renewed his own lease, i. e., *ca.* 150 drachmai.

If our hypothetical original lessee did not renew his lease, and if no one else took the lease at that time, a year or two later some other operator might lease the mine. When he registered it, since he was neither the previous lessee, nor was the concession entirely unworked, he would be enrolled as lessee, but no registrant named, the mine would be classified as *anasaximon*, and the price would be about 150 drachmai.

The prices of 76 leases are preserved in the texts, and, of these, thirty are 150 drachmai, twenty-two are 20 drachmai.<sup>41</sup>

Thus most of the concessions seem to have been of about the same size, probably only a single cutting or gallery, of which the normal price for a new concession was 20 drachmai, and for many of the renewals 150 drachmai. The higher priced leases, perhaps all of them renewals, will be either of the occasional larger unit or less probably of a mine in which a more productive vein has been found.

A price of 9000 drachmai for a mine is mentioned in one of Demosthenes' speeches (XXXVII, 22). In another speech the plaintiff complains that he owed the city three talents, one talent for each of the three shares he held in a mine that had been confiscated (Demosthenes, XLII, 3). In this case a fine was probably involved and so the price of each share may have been 3000 drachmai (half a talent).<sup>42</sup> Although these are higher prices than any found in the inscriptions, of which the two highest are 6100 and 2000 drachmai,<sup>43</sup> there is no good reason to assume that they represent another kind of payment. In the only other contemporary literary evidence, Mantitheos claimed that he and his father had borrowed 2000 drachmai for the purchase of some mines (Demosthenes, XL, 52), which corresponds closely with the average prices on the inscriptions. The higher prices are clearly the exception and it would be the holders of these more expensive leases who would be most apt to become involved in a law suit.

The inscriptions and the three references in the contemporary speeches are the

<sup>41</sup> A charge of having extorted 20 drachmai from each lessee was brought against Moirokles (Demosthenes, XIX, 293). There seems to be no direct connection with the prices.

<sup>42</sup> Ardaillon, *op. cit.*, p. 186.

<sup>43</sup> No. 16 (= *Hesperia*, V, 1936, p. 404, line 299) and No. 18, line 3. In each case the preceding text is very fragmentary and the word *μέταλλον* is not preserved. Since there is no available space in the lines that follow for an introductory phrase to indicate a change in subject from sales of confiscated property to mining leases (as in No. 1, line 40, and No. 16 [= *Hesperia*, V, 1936, p. 398, lines 10-12]) the sums can safely be assumed to be the prices of mining leases.



only existing records of revenue received by the city from the mines in the fourth century.<sup>44</sup> If as seems probable these prices represent the total direct revenue, the question of what the figures actually stand for is of considerable interest. Is the recorded price a single payment for the full duration of the lease, is it a payment due each year, or is it a payment due perhaps each prytany?<sup>45</sup> If the price is a single payment for the full duration of the lease, the state received only 3690 drachmai from the mines in 367/6; if the price is a payment due annually, the record for that year would represent an income to the city of something over 12,000 drachmai, or two talents; if it was a payment due ten times each year it represented a revenue of some 20 talents. On No. 16, perhaps of 342/1, the prices that are actually preserved add up to 8060 drachmai; from the size of the stone one can safely assume a minimum of 18,000 drachmai or three talents for this year on the basis of a single payment, of at least 16 talents on the basis of annual payments, or of 160 talents if the prices are payments due ten times a year.<sup>46</sup>

An argument *ex silentio* against the theory that the prices were to be paid each prytany can be found in Xenophon's *Πόροι*. In that pamphlet, of ca. 355 B.C., a long chapter (iv) is devoted to proposals for increasing the state revenues from the mines. The author, after proving to his own satisfaction that the silver at Laureion is inexhaustible and that silver can never be a glut on the market, makes two specific recommendations: one, that the state purchase slaves to be rented to the mine operators, and second, that companies be formed so that the financial risk in making new cuttings would be reduced and thus the expansion needed to absorb the slave labor would take place. He estimates that if the state start with 1200 slaves, the annual revenue would be 60 talents, if a total of 10,000 were reached the revenue would be 100 talents (iv, 23-24). No mention whatsoever is made of the revenue from the leases. The omission

<sup>44</sup> A tax of one twenty-fourth of the ore produced is mentioned by Suidas: Ἀγράφου μετάλλου δίκη· οἱ τὰ ἀργυρεῖα μέταλλα ἐργαζόμενοι . . . ἀπεγράφοντο τοῦ τελείν ἕνεκα τῷ δήμῳ εἰκοστὴν τετάρτην τοῦ καινοῦ μετάλλου.

There is no trace of the methods by which such a percentage was collected nor of officials responsible for checking and receiving this metal in fourth century Athens, and a twenty-fourth was the percentage collected from mines in Roman Imperial times. Therefore this text is in itself no evidence for such a tax in the fourth century B.C. If correctly referred to Athens, it probably describes the conditions in a later period. Cf. Momigliano, *op. cit.*, pp. 257-258, and Ardaillon, *op. cit.*, pp. 188-198.

A five drachma tax ἐν τοῖς ἔργοις found in No. 16 (= *Hesperia* V, 1936, p. 401, lines 129-130) is probably related to the mining industry, but is probably not a tax on the mines. It may be a tax on workshops, water rights, or something of the sort.

<sup>45</sup> Momigliano, *op. cit.*, p. 254, argues for the first, Ardaillon, *op. cit.*, p. 191, for the second, and Calhoun, *op. cit.*, p. 360, for the third.

<sup>46</sup> These estimates are made on a basis of a long term lease of seven years, and a short one of three. For No. 16 I have assumed a minimum of 141 leases (see below, commentary on No. 16), seventy at 150 and seventy at 20, plus the one at the high price of 6100, that ten of those at 150 were short term leases, and that the long term period was seven years.

of this direct source of revenue is more easily understood if the income from the leases is relatively small, as would be the case if the prices represent either lump sums or annual payments. The omission is almost incomprehensible if the direct income from the leases is assumed to have been 20 talents in 367/6 and at least 160 in *ca.* 342/1.

The annual income of Athens is known to have increased markedly in the second half of the fourth century. It is said to have risen from a low of 130 talents in the 'fifties after the Social War, to a high of 1200 talents in the fourth quarter of the century.<sup>47</sup> Clearly there was a marked increase in the direct revenue from the mines between 367/6 and 342, but since most of the components of the budget are unknown the probable amount received from the leases cannot be established. The question of what the figures on the inscriptions represent must be left unanswered. I do not believe that they were payments due each prytany, as explained above, and there is no real evidence on which to base a choice between the theories of a single payment or an annual payment.<sup>48</sup>

### *Persons Named in Mining Texts*

Many prominent Athenians of the fourth century are found among those who operated the mines and owned workshops and other property in the mining district. About half of the lessees whose names are sufficiently preserved to be identifiable are persons known from other sources (49 out of 106). Politicians such as Polyeuktos of Sphettos or Kallimedon the Crab, Hyperides the orator, Meidias and Thrasylochos of Anagyrous who helped Aphobos in his efforts to rob Demosthenes of his patrimony and against whom Demosthenes' 21st oration is directed, Nikias and Nikeratos of Kydantidai, grandson and great-grandson of the general, Phaidros of Sphettos and his father Kallias, all are found in these texts.

Many of these same men appear on the naval records as trierarchs. Mining operations were no doubt the source of the wealth which made them liable for trierarch duty, even though we know that an exemption of some sort<sup>49</sup> was granted for property in the mines, in assessing the wealth on which the various liturgies depended. In some of these cases an interest in the mines had been a family undertaking, extending over more than one generation. Pheidippos of Pithos, whose name occurs eight times, served himself as trierarch, and his two sons, of whom Diphilos appears in the texts, likewise served in the same way.

<sup>47</sup> The evidence for the state revenues in the fourth century is assembled and discussed in Andreades, *History of Greek Public Finance* (English translation, 1933), pp. 352-355.

<sup>48</sup> The single payment theory finds some support from the fact that the lessee is described as the purchaser, *ὠνητής* thus suggesting that the price named is the total payment. A theory of several payments, however, gets some slight support from the use of the word *καταβολή* (Demosthenes XXXVII, 22) to describe the payment due on the mine. This word is normally used for part payments: cf. Aristotle, *Aθ. Πολ.*, 47; No. 16 (*Hesperia*, V, 1936, p. 401, lines 128, 131, *et al.*).

<sup>49</sup> Cf. Demosthenes, XLII, 18, and Ardaillon, *op. cit.*, pp. 198-200.



One may sometimes see an indication of the growth of a family fortune. Diodoros, son of Simos of Paiania, was trierarch in 334/3 and 325/4, but the origin of his wealth was unknown. In the mining texts, his father Simos appears as lessee of a mine and as the owner of a workshop, and another son of Simos occurs also as a lessee.

Leukios of Sounion, although not known as a trierarch, must also have been a wealthy man, since he presented to the Sounians a piece of property sufficient for a public square. Not only lessees such as Leukios, but also owners of property in the mining regions were men of taxable substance. Lysitheides of Kikynna and Antisthenes of Kytheros appear in several texts as property owners and are likewise known as trierarchs. The few references to non-Athenians, all of them Siphnians, may apply to two men, Kallaischros and his son Stesileides, who are among the few non-Athenians to appear also on the trierarch lists.

The various demes of Attica are well represented by the men found in these texts. The material shows more men from the larger demes and fewer from the smaller, in a proportion roughly corresponding to that in the material from other sources.<sup>50</sup> Members of the demes located in the mining districts<sup>51</sup> are found in disproportionately high numbers only among those men who are named as owners of property but not as owners of workshops or lessees of mines. In the 52 cases where a demotic of an owner of property is preserved, 20 are men from local demes, of whom two had mining interests, whereas of the 32 from other parts of Attica 16 are named also as owners of workshops or lessees. The only local deme of which no member is found in the texts is Besa, for which a small population is attested elsewhere (Gomme, *op. cit.*, p. 65).

#### TEXTS AND COMMENTARY

The texts are arranged in chronological order in so far as possible. Most of them are inscribed in the small letters typical of Athenian records of the third quarter of the century. Except in a few cases, however, where an archon is named, the relative dates of the fragments cannot be established with certainty. Where no other evidence is available, texts with a stoichedon line of the same length or in which similar abbreviations are used are placed in consecutive positions.

<sup>50</sup> See below, List of Names arranged by Demotics; cf. Gomme, *The Population of Athens in the Fifth and Fourth Centuries*, Notes A and B on pp. 49-73.

<sup>51</sup> The mining region formed part of the coastal ridings of Leontis, Akamantis, and Antiochis, which included the demes Sounion, Phrearrhoi, Deiradiotai, and Potamioi Deiradiotai; Thorikos, part or all of Kikynna and Kephale, Prospalta, and Hagnous; Amphitrope, Anaphlystos, Besa, Aigilia, Atene, Thorai, and perhaps Semachidai. Prospalta, Hagnous, Aigilia, and Thorai are north of the mining district, and Atene probably at the southeast tip of the peninsula outside the ore-producing hills (cf. Löper, *Ath. Mitt.*, XVII, 1892, p. 335 and Ardaillon, *op. cit.*, p. 19). See Gomme, *loc. cit.*, for a recent discussion of the demes.

1 Hesperia, X, 1941, p. 14, no. 1. The poletai record for the year 367/6 B. C. This is the only complete record we have. The first part of the text records the sale of a confiscated house and the settlement of the claims brought against it. The rest of the inscription, lines 40-83, records the leases of 17 mining concessions. Lines 40-49 are reprinted here for convenience of comparison with the more developed phraseology of the later texts:

- 40 μέταλλα ἐπράθη ἐπὶ τῆς Ἰπποθωντίδος πρώτης, Δε  
 ξιακὸν ἐν Νάπει ἐπὶ Σκοπιᾷ ὧι γεί πανταχόθεν Ν  
 ικίας Κυδαν, ὦνη Καλλίας Σφήττι ΔΔ: Διακὸν ἐπὶ Λα  
 υρείῳι ὧι γεί: πρὸς ἡλίο ἀνιόντος τὰ χωρία τὰ Ἐξω  
 πίου, δυομένο τὸ ὄρος, ὦνη Ἐπιτέλης ἐκ Κερα ΔΔ ἐπὶ  
 45 Σουνίῳι ἐν τοῖς Χαρμύλο παίδων ὧι γεί: βορρᾶ Κλε  
 όκριτος Αἰγι, νοτό: Λεύκιος Σουνι, ὦνη: Φείδιππος  
 Πιθεύς ΔΔ: Ποσειδωνιακὸν ἐν Νάπηι τῶν ἐκ τῆς στή  
 λης ἐν τοῖς Ἀλυπήτον, ὧι γεί Καλλίας Σφήττι καὶ Δ  
 ιοκλέης Πιθεύς, ὦνητῆς Θρασύλοχο<ς> Ἀναγυρά: ΧΙϠϠ

The classification of the mines is not given. Of the 17 mines leased in this year five are recorded ἐκ τῆς στήλης, that is, they are renewals of leases recorded in a previous year, and so will be the same as those in working order of the later texts. The prices of these five range from 1550 to 50 drachmai. The remaining twelve are all leased for 20 drachmai each and represent new concessions, either new cuttings or *anasaxima*. The leases are recorded by prytany and every prytany except the sixth, eighth, and tenth is represented. Note that the verb ἀπεγράψατο "registered" is not used in this text, and that the phrase ἐν τοῖς ἐδάφεσιν τοῖς — — has not yet appeared. Instead, the mines are in some cases described as ἐν τοῖς *nomen* (see line 48), and once as ἐν τοῖς χωρίοις *nomen* (line 68). Of the 13 men who purchased mines in this year (only 13 because four purchased two mines each), five belonged to prominent or wealthy families, and three more can be identified.

2 (Plate 83). Fragment of Pentelic marble, with left side and rough-picked back preserved, found on March 4, 1935, at the southeast corner of the Bouleuterion Plateia in a late disturbance just above bedrock.

Height, 0.237 m.; width, 0.12 m.; thickness, 0.07 m.

Height of letters, 0.006-0.007 m.

Inv. No. I 2964.

The writing is stoichedon with a square checker pattern in which ten units measure 0.096-0.098 m.



ΣΤΟΙΧ.

[ . . . . . ]μπιακὸ[ν -----]

[βορρ]ᾶθεν<sup>v</sup> Νο[-----]

[ . . ἀπ]εγράψατ[ο -----]

[ . . μέ]ταλλον Θο[ρικοῖ -----]

5 [ . . . . ]αικὸν ἐν Ι[----- ὧι]

[γεί]των βορρᾶθ[εν ----- δν]

[ομέ]νο ἱερὸν Μ[-----]

[ . . ]ικὸν ἐν Αὐλ[ῶνι -----]

[ . . ]κριτος Σου[νι ----- μέταλλον ἐπὶ Θ]

10 [ρ]ασύμωι ὧι γ[είτων βορρᾶθεν ----- ἡλ]

[ί]ο δνομένο Σ[----- ὠνη -----]

ας Θορίκ ΠΔ[----- Ἀπο]

λλωνιακὸν ζ[----- ἐν τῶι λόφωι τῶι]

Βαβιδείω[ι ----- χ?]

15 ρήματα τζ[----- Ποσ]

ειδωνια[κὸν -----]

ον ἐμ Μαρ[ωνείαι ----- ἐμ Πα?]

γγαίωι [----- κατατ]

ομή, ὦν[η -----]

20 s Εὐω[νυμ ----- ὠνη -----]

ΗΠ Θω[-----]

ον ε[-----]

ν ὦν[η -----]

Ιλ[-----]

I have placed this text after the dated stele of 367/6, because of the use of the word ἀπεγράψατο (line 3). There is no mention of the act of registering or a registrant in No. 1, whereas both appear frequently in the later texts. Assuming a consecutive development in the phraseology, this stone should be later than that of 367/6. It cannot be much later because of the letter forms and because of the consistent use of Ο for the genitive masculine singular.

The preserved text contains the fragmentary records of eight to ten leases.

Lines 4-5: The last preserved letter in line 5 is definitely the left hasta of a letter. Ν[ἀπηι] could be restored. Since Nape however was apparently a part of Sounion, and since the two lines probably apply to the same lease, an unknown name in Thorikos is equally probable.

Line 8: This is the only record of a mine located in Aulon. It is known as a place name in the mining district (Aischines, I, 101) and roads leading to and from it are mentioned in Nos. 8 and 10.

Lines 11-12: Mantias of Thorikos (*P.A.*, 9667) could be restored as lessee. His son Mantitheos (*P.A.*, 9676) claimed that he and his father had borrowed twenty minas for the purchase of mines (Demosthenes, XL, 52). Both father and son served as trierarchs (cf. Sundwall, *N.P.A.*, p. 123).

Lines 13-14: After Apolloniakon either Θ[ορικοῖ] or a relative clause introduced by δ̂ is possible. For the hill of Ba(m)bideion see No. 16 (*I.G.*, II<sup>2</sup>, 1582, lines 56-60).

Lines 17-18: [Πα]γγαίωι, see No. 18, lines 6-7.

Lines 18-19: [κατατ]ομή, "cutting"; see above, p. 199.

Line 21: A man's name, such as Θωρυκίων or Θωμυρίων, is probably to be restored.

3 (Plate 83). Fragment of Pentelic marble, with right side and rough-picked back preserved, found in a modern wall in section A on March 2, 1935.

Height, 0.165 m.; width, 0.162 m.; thickness, 0.074 m.

Height of letters, 0.005 m.

Inv. No. I 2503.

The writing is stoichedon, but the columns are not absolutely true, curving slightly to the right in the lower lines. The checker pattern is not square; 10 horizontal units measure 0.085 m., ten vertical units 0.098 m.

#### ΣΤΟΙΧ.

	[-----]ΙΘ[.]Η[.]
	[-----]ν ἐμ Μ[.]Γα <sup>ο</sup>
	[-----]ν τὸ Προκλέ
	[ους(?) -----]ειον ἐπ[ι] Σο[ν]ν
5	[ίωι -----]ΗΣ[.]ΝΕ[.]
	[-----]ν καὶ τὰς Υ[.]
	[-----]βορρ]ἀθεν ἡ χ[α]ρ[άδ]
	[ρα -----]ῆλίο ἀ]νιό <sup>ο</sup> τῶν ΕΘ[.]
	[-----]ῶι γεί[τω]ν νο[τ]
10	[όθεν ---- ὠνη ----]αμβ <sup>ο</sup> Π <sup>ο</sup> Δι[ό]τ[ι]
	[μος -----]ρης Ἀπολλωνί
	[ον -----]Τελέσαρ(?) ]χος Αἰξω . ΑΚΑ
	[-----]Αἰσ]χύλο θυγ[ά]τηρ
	[-----]ν μέτα[λ]λον[.]
15	[-----]ἐν τῶ]ι λόφωι τῶ
	[ι -----]



The genitive in **O** in line 13 and the use of a Pentelic stele with rough-picked back suggest a date before the middle of the century.

The inscribed surface of the stone is badly pocked and the readings are difficult.

Line 10: [— — Σκ] αμβ(ωνίδης) or [Π] αμβ(ωτάδης).

Line 12: A Telesarchos of Aixone is lessee of Hagnosiakon in No. 1, line 50.

4 (Plate 83). Two joining fragments of an opisthographic stele of Hymettian marble, with part of a smooth-picked flat top surface preserved, broken at the sides and bottom. They were found in section B on February 1 and April 13, 1934, the smaller piece in surface fill, and the larger in late fill but with traces of reddish cement on it that suggest it was once built into a Roman wall around the open square south of the Bouleuterion (see above, p. 191, n. 6). The smaller piece preserves only one inscribed face.

Height, 0.135 m.; width, 0.158 m.; thickness, 0.086 m.

Height of letters, 0.004 m.

Inv. No. I 1261.

The writing is stoichedon. On face A the checker pattern is square with ten units measuring *ca.* 0.072 m.; on face B the pattern is not square, with ten vertical units measuring 0.069-0.07 m., ten horizontal 0.073-0.074 m.

Face A	ΣΤΟΙΧ.
[..... <sup>22</sup> .....] / . Σ Λ Σ Κ [-----]	
[..... <sup>20</sup> ..... Κ] εραμεικ[ὸν -----]	
[..... <sup>16</sup> ..... Ἀρτε] μισιακὸν [-----]	
[..... <sup>18</sup> ..... Π] υρρίειον [-----]	
5 [..... <sup>17</sup> .....] ὦνη Φιλοκλῆ[ς -----]	
[..... <sup>13</sup> ..... ὦι] γεί βορρά Διον[-----]	
[... <sup>7</sup> ...] ΗΠ <sup>α</sup> ἐπὶ [Σ] ουνίωι ἄνω Νυμφ[αικὸν ----- ὁ -----]	
[... <sup>7</sup> ...] Θορί ἡργάσατο ὦνη Ἀντίμ[αχος(?) ----- ὦι γεί -----]	
[... <sup>7</sup> ...] τὸ ἐργαστήριον ὁ Πολύξε[νος -----]	
10 [.. <sup>3</sup> .. ὦι γε]ί βορρά Θεμιστίο ἐργασ[τήριον ----- ὦνη -----]	
[... <sup>7</sup> ...] Δ <sup>α</sup> Μνησίλοχος Σουνι ἀ[πεγράψατο μέταλλον — ὦι γεί —]	
[... <sup>6</sup> ... τ]ὸ ἐργ[α]στήριον τὸ Διοτ[ίμο ----- ὦνη -----]	
[... <sup>6</sup> ... Ἀ(?) ] γήν[ω]ρ Φρεάρρι ἀπεγρ[άψατο μέταλλον — ὦι γεί —]	
[... <sup>8</sup> ...] σ[ο] χω]ρίον δυομένο[ν ----- ὦνη -----]	
15 [.. <sup>9</sup> ... Θορικ(?) ] οἱ ἐν τοῖς ἐ[δάφεσιν τοῖς ----- ὦι γεί -----]	
[..... <sup>14</sup> ..... ἡ ὁ] δὸς ἡ ἐπὶ [----- φέρουσα -----]	
[..... <sup>18</sup> .....] πρὸς [ἡλίω -----]	

*lacuna*

	Face B	
	[-----]ΠΟΛΕ[..... <sup>26</sup> .....]	
	[-----]ΙΚ[..... <sup>27</sup> .....]	
20	[-----δ]νο[μ]έ[ν]ο Κολ[..... <sup>20</sup> .....]	
	[-----μέταλλον] ἀνασάξιμον[..... <sup>19</sup> .....]	
	[-----πρὸς ἡ[λ]ίο ἀνιόν Η[..... <sup>18</sup> .....]	
	[-----ἀπεργ]άψ[α]τ[ο] μέταλλο[ν..... <sup>16</sup> .....]	
	[---ὦι γεί---ἡ ὁδὸς ἡ] ἀστικὴ Βήσαζε [φέρουσα..... <sup>10</sup> .....]	
25	[-----ἐρ]γάζεται ὦνη Καλ[λ..... <sup>15</sup> .....]	
	[-----]ον στήλην ἔχον[..... <sup>16</sup> .....]	
	[-----ἡ ὁδὸς ἡ ἐπὶ Λαύ]ρειον φέρουσ[α..... <sup>16</sup> .....]	
	[-----]ν ἀνασάξιμο[ν..... <sup>16</sup> .....]	
	[-----Λα]μπτ μέταλλ[ον ἀπεγράψατο..... <sup>6</sup> .....]	
30	[---ἡ ὁδὸς ἡ---φέρου]σα καὶ τὸ [..... <sup>19</sup> .....]	
	[-----]ΟΞΕΡ[..... <sup>22</sup> .....]	
	[-----]Χ[..... <sup>24</sup> .....]	

The restored left edge of the column on face A and right edge on face B indicate the relative position of the texts on the two sides of the stone. The first line on face B (line 18) is in the position of line 2 on face A; the surface above, although somewhat broken, is sufficiently preserved to suggest that this line 18 was the top one on face B. No trace of a heading is found on either face.

The text seems to require a rather long line, well over fifty letters. Note lines 11-12. Assuming that the ergasterion is the first boundary and that the shortest direction is restored *ὦι γεί νοτό*, 45 letters are used with neither the name of the mine, nor the place, nor the classification included. Again in lines 22-23 at least one boundary, the name of the lessee, the price, and the registrant of the following lease fall within one line space. This relatively long line and a thickness of only 0.083 m. at the top suggest that the stele had only one column on each face.

Lines 2-4: The names Kerameikon, Pyrrieion, and Artemisiakon are all attested for Sounion.

Line 7: See No. 5, lines 53-58, and No. 14, lines 3-9, for a mine named Nymphaikon.

Line 9: *ὄ*, possibly an error for *τό*. If not, this is the only example in the texts of a workshop described by a relative clause.

Line 15: Enough surface is preserved to the left of the omicron to preclude the restoration of a tau and so [*Ἀναφλυστ*]οῖ is excluded; [*Θορικ*]οῖ would be possible.

5 (Plates 84, 85). Seven fragments of Hymettian marble, joined to form six, apparently from the same stele.



- Fragment a: height, 0.122 m.; width, 0.29 m.; thickness, 0.03 m. Part of the smooth picked top surface is preserved.  
Inv. No. I 1851.
- Fragment b: height, 0.13 m.; width, 0.206 m.; thickness, 0.055 m. It is broken on all sides.  
Inv. No. I 679.
- Fragment c: height, 0.115 m.; width, 0.10 m.; thickness, 0.03 m. It is broken on all sides.  
Inv. No. I 631 f.
- Fragment d: height, 0.10 m.; width, 0.33 m.; thickness, 0.115 m. Made up of two fragments that join on the inner surfaces. A smooth uninscribed original back surface is preserved on the larger piece at the right.  
Inv. No. I 1570 + I 2738.
- Fragment e: height, 0.062 m.; width, 0.085 m.; thickness, 0.03 m. It is broken on all sides.  
Inv. No. I 631 d.
- Fragment f: height, 0.109 m.; width, 0.058 m.; thickness, 0.025 m. It is broken on all sides.  
Inv. No. I 810.

Three of the fragments were found in section Z: a, on April 14, 1934, beside the northwest corner of the Middle Stoa in a context of the late fourth century B.C.; b, on April 11, 1933, in a late wall some 14 meters north of a; and f, in late fill about 12 meters west of b. Three were found in section B: c (which forms a textual but not physical join with b), on January 31, 1935, in a late wall south of the Tholos; part of d, and e, in March and April, 1934, in late fill within a few meters of each other along the east side of the Tholos. The larger fragment of d was found in section Ξ, on April 8, 1935, in a modern cellar wall.

Height of letters, 0.004 m.

The writing is stoichedon with a square checker pattern in which ten units measure 0.072 m.; one such unit is left uninscribed between the columns.

Tentative positions for the fragments in the stele, based on the lines of breakage, are suggested in the sketch in Fig. 1. Note that those assigned to the upper part of the stele, a, c, e, and f, are thin fragments with broken surfaces at the back roughly parallel to the face. This same vertical split is found in b, (made up of two pieces which join along the line of the vertical break). Fragment d, with part of the original back, will fall below the line of the split; the broken surface at the right projects far enough beyond the end of the second column to suggest that the stele had still another column to the right. The text is published fragment by fragment, rather

than column by column since the positions of the pieces are not certain. The original stele had a flat top, an uninscribed back, and at least three columns.

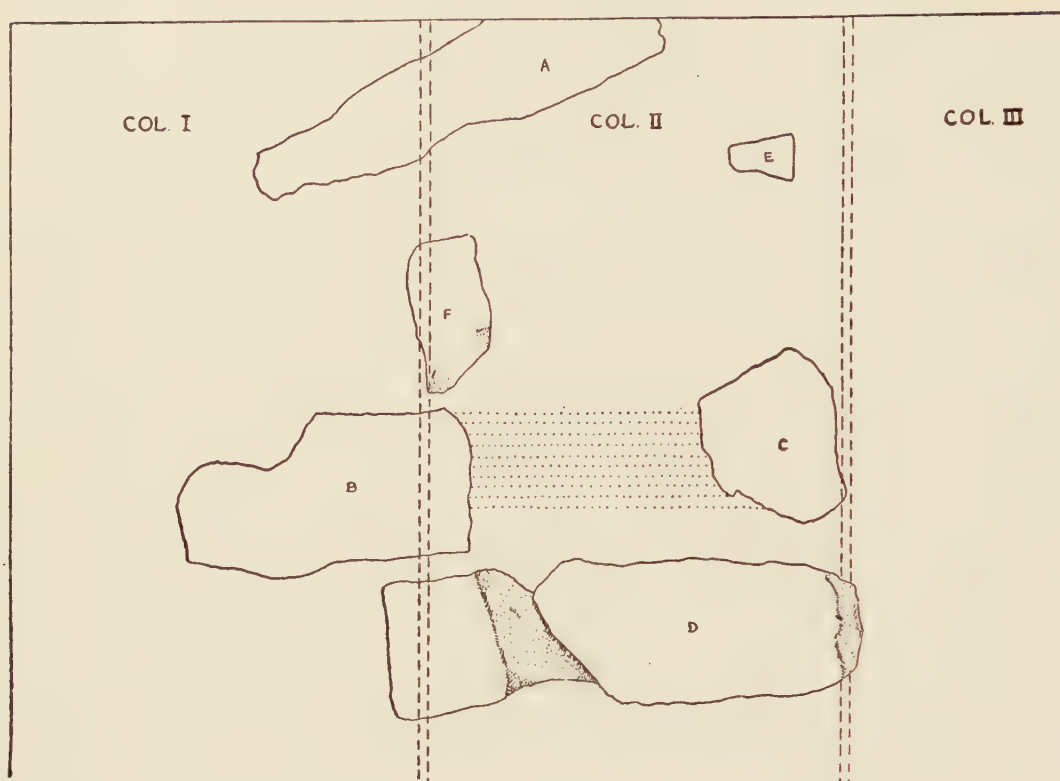


Fig. 1. Position of the Stones Assigned to No. 5

Frag. a

Col. I

ΣΤΟΙΧ. 39

[.....<sup>36</sup>.....] ωι  
 [.....<sup>34</sup>.....] ς Σίφν  
 [ι ἀπεγράψατο μέταλλον ἀνασάξιμον (?) Ποσ]ειδωνια  
 [κὸν στήλην ἔχον ἐν τοῖς ἐδάφεσι τοῖς X]αρμύλο πα  
 5 [ίδων ὦι γεί βορρᾶ Πύρρακος (?) Αἰγίλ νοτ]ό Λεύκιος Σ  
 [οννι ὦνη .....<sup>22</sup>.....]ι ΧΗΗΔ ἐπὶ Σο  
 [νύϊω .....<sup>15</sup>..... μέταλλον] ἀνασάξιμον Κ  
 [.....<sup>18</sup>..... ὦι γεί βο]ρρᾶ Διοκλέους Σο  
 [ννι χωρίον νοτό .....<sup>11</sup>.....] Σοννι χωρίον πρὸς  
 10 [ήλίο δνομένο ἡ ὁδὸς ἡ ἐπὶ Θρά]συμον φέρουσα στή[λ]  
 [ην ἔχον ὦνη .....<sup>14</sup>.....] ἵππο Ἀφιδναῖ Η[....]  
 [.....<sup>19</sup>..... ἀνασ]άξιμ[ον .....<sup>10</sup>.....]  
 [.....<sup>22</sup>.....] Ρ[.....<sup>16</sup>.....]

*lacuna*



## Col. II

- [...<sup>6</sup>...] Λ/ ΕΡ [...<sup>29</sup>...]  
 15 [ . Αἰ]σχύλο; Θριάσ . ΞΙ<sup>Π</sup> . ι'Η . . Ο [...<sup>17</sup>...]  
 [ . ] μέταλλον στήλην ἔχον Θεο [...<sup>17</sup>...]  
 ἐν τοῖς ἐδάφεσιν τοῖς Τίμων[ος . . . . ὦι γεί βορρά]  
 Διοκλῆς Σουνι νοτό 'Αριστι[...<sup>7</sup>... πρὸς ἡλίο ἀν]  
 ι[ό]ν Κίμων Σουνι πρὸς ἡλ[ίο δυομέ ...<sup>18</sup>...]  
 20 ὦνη Εὐφράνωρ Φιλ[...<sup>22</sup>... Φαν]  
 οστράτο Γαργή [ἀπεγράψατο μέταλλον παλαιὸν (?) ἀν]  
 ασάξιμον 'Ηρ[ωικὸν ...<sup>9</sup>... ἐν τοῖς ἐδάφεσιν τ]  
 οῖς Εὐ[...<sup>84</sup>...]  
 ΗΡΛ[...<sup>86</sup>...]

*lacuna*

## Frgs. b &amp; c

## Col. I

- [...<sup>28</sup>...] σιάδης 'Ωνησο  
 [...<sup>25</sup>...] νο]τό ἡ ὁδὸς ἡ εἰς Α  
 [ὕλωνα (?) φέρουσα, πρὸς ἡλίου δυο τὸ ἐ]ργαστήριον τὸ  
 [----- ωνη -----] λης Σίμο [Παι]α  
 30 [νι ...<sup>18</sup>...] | ρ[ . . ἀπ]εγράψατο μέταλ  
 [λον ...<sup>14</sup>...] ωι ἐν Τ . . ΗΛΑΚΟΥ . Τ . . Ε . . Ο  
 [...<sup>16</sup>... τ]ῶι Δι[ο]κλέους Σουνι ὦι γε[ί β]ο  
 [ρρά ἡ ὁδὸς ἡ ἀπὸ Θρασ]ύμου Μ[α]ρῶναζε φέρουσα ν[ο]τό  
 [...<sup>8</sup>... ἐργαστήρ]ιο[ν πρὸ]ς ἡλίο ἀνιόν 'Αρεσίας  
 35 [...<sup>6</sup>... πρὸς ἡλίο δυ]ο ἡ ὁδ[ὸ]ς ἡ ἀπὸ Θρασύμο ἐπὶ Σοῦ  
 [νιον φέρουσα ὦνη ...<sup>6</sup>...] 'Ε[πι]κλέους Σφήττιος ΗΙ.<sup>1</sup>  
 [...<sup>19</sup>...] ἀπεγράψατο μέταλλον Κ[ . ]  
 [...<sup>14</sup>... ἐν τοῖ]ς ἐδάφεσι [τ]ο[ί]ς 'Αρισ[...]  
 [...<sup>24</sup>...] Λ[...<sup>14</sup>...]

*lacuna*

## Col. II

- 40 [...<sup>33</sup>...] ὕΝΑΓ[...]  
 [...<sup>82</sup>...] ον ἀπο[...]  
 [...<sup>20</sup>... πρὸς ἡλίου ἀ]νιόν ἡ ἀκρ[ό]  
 [πολις (?) ἡ ...<sup>21</sup>... ὦ]νη 'Αμεινία[ς Φ]  
 [ιλίνο Σουν . . Βήσησι μέταλλον 'Α]φροδισιακὸν ἐ[ν]  
 45 τ[οῖς ἐδάφεσιν τοῖς { 'Επιζήλο } ὦι γ]εί βορ Δημοφίλ[ο]  
 Καλλίο }

- [.....<sup>23</sup>..... ὦνη] Πολύμνηστος Θ[ε]  
ο[.....<sup>25</sup>.....] δης Θεοτίμο ἐξ [Ο]  
ἴ[ο μέταλλον ἀπεγράψατο στήλην] ἔχον ἀνασάξιμ[ο]  
ν [..] Λ[.....<sup>10</sup>..... ὦι γεί βορ Λυσικ(?) ]ράτης Κικυν ν[ο]  
50 τ[ό] <A[.....<sup>19</sup>..... καὶ ἦ] ὁδὸς ἡ ἐπὶ Λαύ[ρ]  
ειον [φέρουσα πρὸς ἡλίου δυο. <sup>4</sup>..] μων πρὸς ἡλίο[ν]  
ἀνιό[ν .....<sup>17</sup>..... ὦνη Εὐδ]ρ[ά]ων Εὐδράον  
ος Θο[ρίκι .....<sup>7</sup>..... μέταλλον ἀνασάξι]μον Νυμφαι  
κὸν σ[τήλην ἔχον Μαρωνεῖαι(?) ἐν τοῖς ἐδάφ]εσιν το[ί]  
55 σ Αὐτ[οφάντου ὦι γεί βορ χωρίον Λυσιθείδου καὶ ἦ]  
χαρά[δρα ἡ .....<sup>19</sup>..... νοτό Αὐτοφάντ]  
ο Κυθ[ηρρ ἐργαστήριον πρὸς ἡλίου ἀνιόν Διοφάνο]  
[υς] <[.....<sup>36</sup>.....]

*lacuna*

Frag. d.

Col. I

- 60 [-----] κλη  
[ς -----] ΘΟΚ  
[-----] Αἰ]γιλ  
[-----] μέταλλον ἀπ]εγρ  
[άψατο -----] το]ίς [.]  
65 [-----] ΛΟ  
[-----] Π

*lacuna*

Col. II

- [.....<sup>10</sup>.....] \I[.....<sup>7</sup>.....] \I\ μαχος ΛΙ[.] ~ [.....<sup>7</sup>.....]  
[.....<sup>11</sup>.....] ς Ἐρχ. ΗΗ Βησαι Χαιρέας Αἰσχ[.....<sup>5</sup>.....]  
[.....<sup>4</sup>..... μέταλλο]ν ἀπεγράψατο Βήσησιν Ἀπολλων[ιακ]  
70 ὄν [στήλην ἔχ]ον ἀνασάξιμον, ὦι γεί βορ Καλλίου [ἐρ]  
γαστήριον νοτό Ἀνδρίου χωρίον καὶ πρὸς ἡλίο[ν ἀ]  
[ἐρ]γαστήριο[ν]  
ν[ιόν .....<sup>7</sup>.....] ὦνη Διότιμος Μνησιστράτο Ἀχαρ[ν.]  
[.....<sup>12</sup>.....] ὥρο Πόρι ἀπεγράψατο μέταλλο[ν στ]  
ήλην ἔ[χον Βήση]σιν ἀνασάξιμον Ἀθηναικὸν ἐν [τοῖ]  
75 ς ἐδάφ[εσιν τοῖς] Ἐπιζήλο Φρεαρρί, ὦι γεί βορ κα[τα]  
τομή τ[ὸ .....<sup>8</sup>.....] ακοῦ μετάλλο νοτό τὸ Ἀρτεμ[ίσι]  
ον τὸ ἐ[ν .....<sup>8</sup>.....] ω]ν καταβαίνοντι πρὸς ἡλ[ίου ἀν]  
ιόν τὸ ἐρ[γαστήριον] τὸ Φιλοκράτους Εὐω[νυμ ἡλίο]  
[ν] δυο ἐργ[αστήριον] Ἐ]πιζήλου Φρεαρ[ρί ὦνη Θεόδωρ]  
80 [ο]ς Ὀλυμπ[ίχου Μελι .....<sup>24</sup>.....]



*lacuna*

Frag. e

- [.....<sup>27</sup>.....] ΛΚΛΕ[.....<sup>8</sup>.....]  
 [.... μέταλλον ἀπεγράψατο Ἀθ]ηναικὸν [.....<sup>8</sup>.....]  
 [.....<sup>20</sup>.....] ἡργηκὸς ᾧ γε[ί βορ .....<sup>4</sup>.....]  
 85 [.....<sup>18</sup>..... νοτό Ἀν]δρίο κάμινος π[ρὸς ἡλίο ἀ]  
 [νιόν .....<sup>7</sup>..... ἐργαστήρ]ιον πρὸς ἡλίο δ[νομέ .....<sup>4</sup>.....]  
 [----- ὦνη -----]άτους Ὁῆθεν ΗΠ[.....<sup>8</sup>.....]  
 [.....<sup>16</sup>..... μέταλ]λον ἀπεγράψ[ατο .....<sup>5</sup>.....]  
 [.....<sup>10</sup>..... ἐν τῷι λόφωι τῷι] Βαμβιδεί[ωι .....<sup>6</sup>.....]  
 90 [.....<sup>29</sup>.....] ΑΛ[.....<sup>8</sup>.....]

*lacuna*

Frag. f.

Col. I Col. II

- ΕΜΟΥ[.....<sup>29</sup>..... ἀπεγρά]  
 -- ΛΛ ψατο μ[έταλλον .....<sup>25</sup>..... ἐν]  
 -- Τ τοῖς ἐ[δάφεσιν τοῖς .....<sup>15</sup>..... ᾧ γεί βορ]  
 95 -- Ο Ἐπιθέ[τον (?) ----- νοτό -----]  
 -- Α ΟΔΗΜΟ[.....<sup>34</sup>.....]  
 -- Ι πρὸς ἡλ[ίον ἀνιόν .....<sup>17</sup>..... πρὸς ἡλίου]  
 -- Α δυο ἐργ[αστήριον .....<sup>25</sup>.....]  
 -- Υ ΛΩΝC[.....<sup>35</sup>.....]  
 100 -- Τ ΡΡΙ[.....<sup>36</sup>.....]  
 ΕC[.....<sup>37</sup>.....]  
 Ω[.....<sup>38</sup>.....]

*lacuna*

A date near the middle of the fourth century is suggested. Note the use of both *o* and *on* for the masculine singular genitive ending and the absence of the colon to mark abbreviations and to set off numbers (except for one occurrence in line 15).

## Fragment a

Lines 2-6: Poseidoniakon probably at Sounion. See No. 1, lines 44-47 and 79-81 for the records of two mines at Sounion also located in the property of the children of Charmylos and bounded on the south by the property of Leukios of Sounion. Neither mine is named in that text. The Poseidoniakon of the present record may be one of those two or a third near by. Leukios of Sounion presented a plot of land to his fellow demesmen to use as an agora about the middle of the century (*I.G.*, II<sup>2</sup>, 1180). The inscription which contains the terms of the gift and which was to be set up in

this agora was found in an ancient slag heap at Agrileza (*Ath. Mitt.*, XIX, 1894, p. 241; the place of finding is marked on the map in Ardaillon). The land which he donated to his deme was perhaps part of the property named in the mining inscriptions. He is known from a liturgy list (*I.G.*, II<sup>2</sup>, 417) where his father's name Theokles is preserved. He has been restored as lessee of a mine in two other texts, where the patronymic (or part of it) and demotic are preserved: No. 20, lines 5-6, and No. 16, Face A, II, line 20. His father Theokles son of an earlier Leukios has been restored in the list of the Heroes of Phyle in 403 (*Hesperia*, II, 1933, p. 155 and X, 1941, pp. 284 ff.). His son Leukios must have lived to a ripe old age, and been well on in his seventies when he held a liturgy, for *I.G.*, II<sup>2</sup>, 417, cannot be earlier than 330 B.C. (see commentary in *I.G.*, II<sup>2</sup>, *ad loc.*). He first appears in the mining inscriptions in 367/6. The texts in which he has been restored as lessee have been tentatively dated to the years 342/1 and 338/7. The registrant from Siphnos (line 2) is perhaps Kallaischros; cf. No. 20, lines 1-6.

Lines 6-11: A mine at Sounion. Property of Diokles of Sounion is named in two other leases on this stele (lines 18 and 32). He can be identified with the Diokles of Sounion whose son is named on a tax record of the second half of the century, *I.G.*, II<sup>2</sup>, 1596. By restoring στή[λην οὐκ ἔχον] in line 11 (cf. No. 1, lines 72-73; No. 19, lines 19-20) the lessee could be restored as [Δρωπίδης Ἑρμ]ίππο Ἀφιδναῖ(ος) and identified with Δρωπίδης Ἑ[ρμ]ίππου Ἀφιδν(αῖος), lessee of a concession at Maroneia, in No. 19, line 22. See the commentary thereto for Dropides.

Line 15: An Aischylos of Thria of the late second century is known (*P.A.*, 444).

Lines 15-20: Theo — — perhaps at Sounion.

Lines 20-24: Heroikon. In line 20 Archestratos son of Phanostratos of Gargettos could be restored as registrant and identified with the Archestratos of Gargettos, trierarch in 377/6, *I.G.*, II<sup>2</sup>, 1604, line 15. His son Phanostratos, trierarch in 353/2 and again in the 'twenties (*P.A.*, 14100) registered a mine at Thorikos in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 45) and owned a workshop and property (*ibid.*, line 49, and No. 20, line 27). The patronymic of Archestratos is not elsewhere attested.

Fragments b and c form a textual but not a physical join. Column I, lines 26-39, preserved only on b, contains the records of three leases.

Lines 26-29: A fragmentary record. In lines 27-28 Anaphlystos could be restored instead of Aulon and the *πρός* omitted. Simos of Paiania, son of Diodoros, is named as lessee in two texts, No. 13, lines 45-46, and No. 16 (Face A, II, line 62) and as owner of a workshop in No. 13, lines 44-45, and No. 12, line 7. His son Diodoros, trierarch in the third quarter of the century (*P.A.*, 3953), has tentatively been restored as owner of a workshop in No. 14, lines 11-12. The lessee of the present text could be another, perhaps an older, son.

Lines 30-36: A mine probably at Sounion.

Lines 31-32: Perhaps



[λον . . . <sup>6</sup> . . . ἐπὶ Σουνί]ωι ἐν τ —————  
 [ . . . καὶ ἐν τῷ χωρίῳ τ]ῷ Διοκλέους Σουνι ———

Note that property of Diokles of Sounion and a road to Thrasykos are also named in the boundaries of a mine at Sounion in lines 6-11 of this same text.

The letters in line 33 are difficult to read, as elsewhere on this stone. Apparently the road from Thrasykos led to Maroneia. See commentary on No. 14, line 19, for Maroneia. Epikles of Sphettos, father of the lessee, leased a mine in Nape in 367/6 (No. 1, line 71).

Column II, lines 40-58: The left edge is preserved on fragment b, and the right end on c, containing four leases.

Ameinias, son of Philinos of Sounion, tentatively restored as lessee in lines 43-44, is known from a decree of the Salaminioi of 363/2 (*Hesperia*, VII, 1938, p. 4, no. 1, line 73). His father Philinos leased Hermaikon at Maroneia in 367/6 (No. 1, line 60).

Lines 44-47: Aphrodisiakon perhaps at Besa. The restorations in lines 44-45 are very tentative. An Aphrodisiakon at Besa is recorded in No. 18, lines 33-37. Both Epizelos and Kallias were owners of *edaphe* at Besa (line 75 of the present text, and No. 1, line 74).

Lines 47-53: Lysikrates of Kikynna was probably related to Lysitheides, named as property owner at Thorikos in several texts (discussed under No. 6, line 9). The lessee Eudraon son of Eudraon of Thorikos appears as lessee of Heraikon at Thorikos in No. 20, line 17. He is probably to be identified with the Eudraon of Thorikos who served as trierarch in 342/1 and 323/2 (*P.A.*, 5444).<sup>52</sup>

Lines 53-58: Nymphaikon at Maroneia(?). Compare No. 14, lines 3-9, for the restorations. The two records may be of the same concession.

Fragment d, lines 60-80, preserves parts of two columns. Only the last three letters are preserved of the first column. Parts of three records are preserved on column II.

Lines 68-73: Apolloniakon at Besa. The repetition of the place (lines 68 and 69) suggests that the preceding mine was not at Besa. The registrant, Chaireas son of Aisch — — —, is perhaps to be identified with the registrant of Ktesiakon at Besa in No. 10, line 6, where the text reads Χαῖρ[ . . . . .<sup>17</sup> . . . . .]ύς. In the present text the demotic would be abbreviated. See also — — ρίας Αἰσ — — — of No. 15, line 32. Kallias who owned a workshop to the north is perhaps to be identified with Kallias of Lamptraia, trierarch in 353/2 (*P.A.*, 7873), whose property at Besa is named in No. 1, line 74. In line 72 the stone mason apparently omitted ἐργαστήριον and so inserted it

<sup>52</sup> Eudraon son of M — — — of Thorikos was prytanis in 327/6 (*Hesperia*, Suppl. I, no. 1, line 72). An identification of the trierarch with a lessee of mines seems more probable than with a prytanis.

between the lines. The lessee Diotimos son of Mnesistratos of Acharnai is probably to be identified with Diotimos of Acharnai (*P.A.*, 4382: symproedros *ca.* 346) and his father with Mnesistratos of Acharnai (*P.A.*, 10368, choregos early in the fourth century, *I.G.*, II<sup>2</sup>, 3092). Granted a Diotimos now connected with the family of Mnesistratos, it seems possible that Theotimos (*P.A.*, 7058) son of Diotimos also named as choregos on *I.G.*, II<sup>2</sup>, 3092 is from Acharnai and related to Mnesistratos. Whether Diotimos son of Diomnestos of Acharnai (*P.A.*, 4383) and his brother Diomedon (see below, No. 14, line 43) are members of this same family, perhaps cousins of the lessee, is uncertain.

Lines 73-80: Athenaikon at Besa. The registrant, --- ὥρο Πόρι(ος) appears in another text as lessee of a mine at Besa (No. 18, line 22); by allowing three spaces at the beginning of line 73 for the price of the preceding lease, the length of the name is the same. A Philokrates of Euonymon, probably a descendant of the man named here, is known for the third or second century (*P.A.*, 14610); see also No. 18, line 21. Theodoros, son of Olympichos, of Melite is lessee of a mine Apolloniakon at Anaphlystos; cf. No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 99-100). He may be related to the family of Theodoros son of Eudemides of Melite (*P.A.*, 6882), trierarch in 357/6. The name of the mine, whose *katatome*, "cutting," is the northern boundary of Athenaikon is of 11 or 12 letters, depending on the restoration τ[ὸ-] or τ[οῦ-]. This is the first reference to a sanctuary of Artemis in the mining region. The last two hastas of the nu, following the break in the text in line 77, are perfectly clear. Probably a proper name of a family or genos is to be sought, and a phrase such as ἐμ Φιλομηλίδων (No. 16 = *I.G.*, II<sup>2</sup>, 1582, line 71; and No. 20, lines 40 and 44) to be restored. Two dedications to Artemis have been found in the district (Solders, *Die Ausserstättischen Kulte und die Einigung Attikas*, p. 29, no. 55 = *I.G.*, II<sup>2</sup>, 4633, and 56 = *Ath. Mitt.*, LXII, 1937, p. 8, no. 6). The first was found at Agrilesa and the other further north at Kamaresa, which is slightly southeast of the probable location of Besa. The dedication found there may well have stood originally in the Artemision of our text.

Fragment e, lines 82-90, contains the partial records of two leases.

Lines 83-87: An Athenaikon. The word ἡργηκός "having been lying idle" or "not being worked" seems to apply to the mine. Demosthenes, XXVII, 19, uses the verb of a work shop ἀλλ' ἐνίοτε μὲν φησιν ἀργῆσαι τὸ ἐργαστήριον. An Andrios appears also as property owner at Besa (cf. above, line 71). For κάμινος, a furnace for smelting the ore, see above, p. 195.

Fragment f, lines 92-102, preserves the last letter of one column and only a few letters in each line of a second column.



6 (Plate 85). Three fragments, of which two join, of whitish Hymettian marble, found in April and May of 1937 to the east of the Tholos, the two pieces of fragment a in a late Roman disturbance of the classical floor of the Agora, and fragment b in later disturbed fill. The inscribed face only is preserved; at the lower edge of a, however, there are chisel marks from a later recutting of the stone.

Fragment a: height, 0.115 m.; width, 0.15 m.; thickness, 0.027 m.

Inv. No. I 4782

Fragment b: height, 0.08 m.; width, 0.038 m.; thickness, 0.038 m.

Inv. No. I 4942

Height of letters, 0.004 m.

The writing is stoichedon with a square checker pattern of which ten units measure 0.07-0.071 m.

Frag a.

ΣΤΟΙΧ. 48

- [.....<sup>9</sup>..... ὦι γ: βορ]: Ἐρ[μα]ι[κὸν μέταλλον νοτ: .....<sup>11</sup>.....]  
 [.....<sup>5</sup>..... πρὸς ἡλίο ἀν]ι: Κη[φ]ισοδ[.....<sup>24</sup>.....]  
 [.....<sup>14</sup>.....] ὠνη: Ἰκέτης Ελ[.....<sup>22</sup>.....]  
 [.....<sup>7</sup>..... ἀπεγράψ]ψ: Θορικ: μέταλλ[ον .....<sup>19</sup>.....]  
 5 [.....<sup>12</sup>.....]νιακ: καὶ ἐπικατατ[ομὴν ὦι γ: βορ: ἡ ὁδὸς ἡ ἐχ]  
 [Θορικ: ἐπὶ Λα]ύρειον φέρον: νοτ: ἐδ[άφ: .....<sup>16</sup>.....]  
 [.....<sup>8</sup>..... πρ]ὸς ἡλίο ἀνι: καὶ δυο: ΟΚΙ[--- ὠνη: ---]  
 [.....<sup>9</sup>..... Θ]ορίκ: Π: Σμῖκρος Λαμπτρ:[ἀπεγράψ: μέταλλον ἀ]  
 [νασάξιμ: Ἀρ]τεμισιακ: στήλην ἔχον Θο[ρικ: ἐν τοῖς ἐδάφ: τ]  
 10 [οῖς Λυσιθείδο]ν ὦι γ: βορ: ἐδάφ: Λυσιθε[ίδου .....<sup>8</sup>..... ἡ ὁδὸ]  
 [ς ἡ ἐχ Θορίκ: φ]έρον: ἐπὶ Θράσυμ: νοτ: Ν[.....<sup>17</sup>.....]  
 [.....<sup>11</sup>.....]: ὠνη: Θεώρος Θεαίο Παλλη[ν: .....<sup>15</sup>.....]  
 [.....<sup>11</sup>.....] Ἀ]ναφλύ: ἀπεγράψ: μέταλλ[ον .....<sup>14</sup>.....]  
 [.....<sup>12</sup>.....]ον καὶ ἐπικατατομὴν ἐν [.....<sup>17</sup>.....]  
 15 [.....<sup>17</sup>.....]ς πρὸς ἡλίο [ἀ]νι[: .....<sup>18</sup>.....]

*lacuna*

Frag. b

---ΟΤ ---  
 ---ΟΙ ---  
 ---ΝΑ ---  
 20 ---ΙΚ ---  
 ---ΟΥ ---  
 ---ΩΦ ---  
 ---Ο

*lacuna*

A date near the middle of the fourth century is suggested by the use of *o* as genitive masculine singular ending (lines 7, 12 and 15) and the single appearance of *ov* in line 10. Note also the omission of the patronymic of the registrant in line 8. The 48-letter line is suggested by line 9.

Line 3: The name Hiketes is new in Attic inscriptions, but is found as a *καλός*-name on several vases of the early fifth century (*A.R.V.*, p. 925). The letters which follow may belong either to a patronymic or a demotic.

Lines 4-8: A mine and cutting at Thorikos. The exact meaning of *ἐπικατατομή* is unknown. See above, p. 199. The word is found only in this text (lines 5 and 14) and in No. 16, Face A, II, line 50 and IV (= *I.G.*, II<sup>2</sup>, 1582, line 137). A mine Poseidoniakon and *katatome* are recorded for Thorikos in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 70) but our present text is too fragmentary to suggest an identification.

Lines 8-12: Artemisiakon at Thorikos registered by Smikros of Lamptrai and leased by Theoros son of Theaios of Pallene. For the restorations compare No. 19, lines 4-9, perhaps another record of this same concession. At least one renewal intervenes between the two records, for the lessee in this text is not the registrant of the later one. The demotic of Lysitheides, Kikynneus, is there preserved. He was one of the wealthy Athenians prominent in the middle of the fourth century, and trierarch in 355/4 (*P.A.*, 9395; Demosthenes, XXI, 157, *et al.*). He has been restored as property owner in three other texts: No. 5, line 55; No. 14, line 5; and No. 20, line 27. His children are named as owners of *edaphe* in No. 29, lines 4 and 7, a text which presumably postdates the death of Lysitheides. He is known as one of the early pupils of Isokrates, who began teaching *ca.* 393, and he served as mediator in 369/8; his son, Lysikrates (*P.A.*, 9461) was choregos in 335/4 and trierarch in 325/4. He must have been in his forties to act as mediator, so his death cannot have been much later than 335.

The only other name from Kikynna in these texts is [*Λυσικ*]ράτης Κικυν(νεύς) of No. 5, line 49, who is probably a member of the same family, either the son of Lysitheides or a hitherto unknown brother of Lysitheides. Line 10 could read either *Λυσιθε*[ίδου Κικυν: καὶ ἡ ὁδὸς] or *Λυσιθε*[ίδου ἡλίου ἀνι: ἡ ὁδὸς].

7. *I.G.*, II<sup>2</sup>, 1583. Two non-joining fragments of Hymettian marble found in the Kerameikos during the winter of 1909/10. Both pieces have a smooth picked flat top surface and an uninscribed back.<sup>53</sup> The two fragments are from different columns;

<sup>53</sup> Fragment a: height, 0.23 m.; width, 0.10 m.; thickness at top, 0.107 m., at bottom, 0.089 m. Fragment b: height, 0.093 m.; width, 0.13 m.; thickness, 0.106 m.

Note that on the larger piece (a) there is a marked tapering towards the bottom; the top surface is at right angles to the back, not to the inscribed surface.

The letters, 0.004 m. high, are set in a square checker pattern of which ten units measure *ca.* 0.074 m.



the text of (a) contains the records of perhaps five mines, that of (b) applies to confiscated property. A few new readings based on an examination of the stones and several suggested restorations follow.<sup>54</sup>

Line 4: Probably to be restored [᾿Α]ριστύλ[λο —] not [πε]ριστύλ[ο —].

Line 14: The letters which are ΟΙ . . ΜΙΛ do not support the restoration δν]ο[μέν:] μ[έταλλον].

Line 16: The space corresponding to the first four letters of the next line is uninscribed.

Lines 17-27 can be restored with a stoichedon line of *ca.* 39 to 40 letters:

[... μέταλλ]ον ἀπ[εγ]ράψ[ατο παλαιὸν ἀνασάξ: ...<sup>4-5</sup>...]  
 [...<sup>9</sup>...]: ἐν το[ῖς ἐδάφεσιν τοῖς ...<sup>12</sup>...]  
 [... ὦι γεί]: βορ: μέτα[λλον ...<sup>18-19</sup>...]  
 [...<sup>6</sup>... ἡ χ]αράδρα ἡ εἰς [᾿Ανάφλυστον(?) φέρου: ἡλίου δ]  
 [νο: μέταλ]λον Εὐδώτειο[ν ὦν: ...<sup>15-16</sup>...]  
 [...<sup>8</sup>...]: ᾿Απολλοδώρου [...<sup>5-6</sup>... μέταλλον ἀπεγράψ]  
 [ατο ἀνασά]ξ: ᾿Αμιτροπ[ῆσιν ἐν τοῖς ἐδάφ: τοῖς — —]  
 [...<sup>8</sup>...]: ᾿Αμφιτροπα[ι: ὦι γεί: βορ: ...<sup>9-10</sup>...]  
 [...<sup>7</sup>...]: νοτ: Σιμύλο[ν ἐργαστήριον πρὸς ἡλίου]  
 [ἀνιόν: ἡ] ὁδὸς ἡ Βήσαζε [φέρου: πρὸς ἡλίου δνο: Σιμ]  
 [ύλον Ποτ]αμί: ἐργασ[τήριον ὦν: ...<sup>13-14</sup>...]

See No. 21, line 15, for the gully to Anaphlystos, and line 19 and commentary thereto for the mine Eudoteion. The name Simylos is attested for the deme Potamos in the fifth century (*P.A.*, 12683).

Fragment b, lines 30-42, deals with confiscated property.

Line 30: [— —]υε: τῆς οἰκία[ς — —]

Line 37: [— —]ον ἐν τ[— — —]

Lines 39-40:

[— — — —]καὶ [ὦ]φ[λ]η[κότος τῶι δημοσίῳι — — —]  
 [ἔδοξε δὲ ἐν]επίσκημ[μα εἶναι — — — — — — — — —]

Compare No. 16 (= *Hesperia*, V, 1936, p. 402, line 183).

8. *I.G.*, II<sup>2</sup>, 1584. An inscribed fragment of Hymettian marble found on the eastern

<sup>54</sup> Werner Peek, in *Attische Inschriften*, p. 28, no. 14 (an unpublished article designed for *Ath. Mitt.*) gives most of these corrections to the text as published in the *Corpus*.

part of the Acropolis. In letter forms and marble this fragment<sup>55</sup> closely resembles Nos. 9 and 10. The length of line cannot be established with any certainty, but was probably either of 37 or 39 letters.

The text contains the record of two leases, an Aphrodisiakon and a Dionysiakon. The mine Hephaistiakon (line 14) seems to be named as one of the boundaries of Dionysiakon.

9 (Plate 85). A fragment of Hymettian marble with the inscribed face and a smooth back surface preserved, found in a modern wall in section BB on March 30, 1939.

Height, 0.19 m.; width, 0.18 m.; thickness at top, 0.061 m., at bottom, 0.054 m.

Height of letters, 0.004 m.

Inv. No. I 5749.

The writing is stoichedon, with a square checker pattern of which ten units measure 0.072 m.

ΣΤΟΙΧ. 37

[.....<sup>23</sup>.....] ΦΟΣ[.....<sup>11</sup>.....]  
 [.....<sup>21</sup>.....]ς ὠνητ[ῆς.....<sup>9</sup>.....]  
 [.....<sup>16</sup>..... Νι]κοδήμου Ἀ[θμονε: ἀπεργρ  
 [ἀψατο μέταλλον παλα]ιὸν ἀνασάξι[:.....<sup>9</sup>.....]  
 5 [.....<sup>12</sup>..... ἐν] τοῖς ἐδάφε: το[ῖς.....<sup>9</sup>.....]  
 [.....<sup>13</sup>.....]σιακὸν στήλην ἔ[χον ὦι γεί: βο  
 [ρ: τὰ.....<sup>7</sup>.....]ου καλούμενα ἐδάφ[η νοτό:.....<sup>6</sup>.....]  
 [.....<sup>10</sup>.....]υς: χωρία πρὸς ἡλί[ου.....<sup>10</sup>.....]  
 [... ὠνητῆς] Κηφισόδωρος Ἀθμο[νεὺς.....<sup>9</sup>.....]  
 10 [...<sup>9</sup>.....]ος Λουσιενὺς μέτ[αλλον ἀπεγράψατο]  
 [παλαιὸν ἀ]νασάξι: στήλην [ἔχον.....<sup>8</sup>..... ἐν το  
 [ῖς ἐδάφ]ε: τοῖς Νικίου Θο[ρικ: ὦι γεί: βορ:.....]  
 [... καὶ] Σμίκυθος Θορίκ[: πρὸς ἡλίου ἀνι: χαρ  
 [ἀδρα(?) νοτ]ό: ἡ ἀτραπὸς ἡ ἐπὶ [...<sup>10</sup>..... ἄγουσα]  
 15 [πρὸς ἡλί]ου δυομέ: Ἀρχεστ[ράτου ἐργαστήριον]  
 [ὠνητῆς Πο]λύεκτος Σφήττ[ιος.....<sup>13</sup>.....]  
 [...<sup>8</sup>.....]ς Ἀμφιτροπῆθ: ἀπ[εγράψατο μέταλλο]  
 [ν παλαιὸν ἀνα]σάξι: Ἑρμαι[κὸν στήλην ἔχον ἐν  
 [τοῖς ἐδάφε: τοῖς]ς Τεισάνδ[ρου.....<sup>13</sup>.....]  
 20 [...<sup>15</sup>.....] ΙϞΕΤΙϞ[.....<sup>16</sup>.....]  
 [...<sup>19</sup>.....]Ε[.....<sup>17</sup>.....]

<sup>55</sup> The writing is stoichedon with a square checker pattern in which ten units measure *ca.* 0.072 m.



The letter forms and spacing are very like those in No. 8.

Lines 3-9: The restorations in line 3 are made on the assumption that the father of the registrant is the Nikodemos of Athmonon (*P.A.*, 10863) who was epistates at Eleusis in 356/5-353/2. Euphemides, son of the lessee, Kephisodoros of Athmonon, is named as registrant and lessee of an Artemisiakon at Thorikos in a later text (No. 32 = *I.G.*, II<sup>2</sup>, 1587, lines 17 and 19) located in the property of Epameinon of Thorikos (cf. No. 28, lines 1 and 6-7). Lines 4-6 could be restored:

[— — μέταλλον παλα]ῖον ἀνασάξι[ : καὶ ἐπικατ]  
[ατομὴν Θορικ: ἐν] τοῖς ἐδάφε: τοῖ[s Ἐπαμείνων]  
[ος Θορι: Ἀρτεμι]σιακὸν

and the two mines leased by father and son considered the same or adjacent mines.<sup>56</sup> See above, No. 6, line 5, for ἐπικατατομή.

Lines 10-16: Cf. No. 20, lines 48-52, a record of the same or of an adjacent mine. The lessee Polyeuktos of Sphettos (*P.A.*, 11950) is a well-known Athenian, active in politics in the third quarter of the century.

**10** *I.G.*, II<sup>2</sup>, 1585. A fragment of Hymettian marble found on the south slope of the Acropolis.<sup>57</sup>

The text has been restored with a line of 37 letters. In lines 8 and 17, however, I would suggest παλαιὸν ἀνασάξι: rather than παλαι ἀνασάξιμον, for the former is found in other texts, the latter never.

The text contains the record of three leases of which the second is Ktesiakon at Besa, the third Apolloniakon at Besa.

The name of the operator of the Artemisiakon mine, which is to the west of the mine in the first lease, can be restored as Euthydikos. Line 5 and 6 thus read:

[α]λλον τὸ Ἀρτεμισιακὸν ὃ [ἡργάζετο Εὐθύδικος]  
[Μν]ησιθέου Σφήττιος — — — — —

For Euthydikos son of Mnesitheos of Sphettos see No. 18, lines 20-21.

The registrant of the second lease Χαιρ — — (line 7) is perhaps the same man as Χαιρέας Αἰσχ — —, registrant of Apolloniakon at Besa, in No. 5, line 68.

The restoration in line 15 of Epilykos son of Nikostratos of Gargettos as regis-

<sup>56</sup> The fact that the later record seems to be a new lease argues somewhat against an identification.

<sup>57</sup> Part of the left edge, a flat top, and a smooth back are preserved. The upper part of the inscribed face is missing. The stone tapers from left to right; the thickness at the left is 0.095 m., at the right 0.07 m. The stoichedon writing is set in a square checker unit of which ten units measure *ca.* 0.073 m.

trant is probably not correct, for Epilykos is now dated close to the end of the fourth century (*Hesperia*, Index I-X, s. v.). I should prefer to restore a member of the family of Phanostratos of Gargettos, known to have had interests in the mines (discussed above under No. 5, line 20).

**11** (Plate 86). A fragment of Hymettian marble found in late fill in section B on April 27, 1934. The inscribed face only is preserved.

Height, 0.12 m.; width, 0.084 m.; thickness, 0.027 m.; height of letters, 0.004 m.  
Inv. No. I 1879.

The writing is stoichedon set in a square checker pattern of which ten units measure *ca.* 0.072 m.

## ΣΤΟΙΧ.

[...<sup>8</sup>...]YP[-----]  
 [...<sup>8</sup>...]ιος O[-----]  
 [...<sup>7</sup>...]ης Δημο[-----]  
 [...<sup>6</sup>...]: Διοφάν[ης ----- μέταλλον ἀπεγράφ]  
 5 [ψατο πα]λαιὸν ἀν[ασάξιμον -----]  
 [... ἐπὶ Θ]ρασύμωι Ν[-----]  
 [... ὦι] γείτων β[ορρᾶθεν -----]  
 [. νοτόθ]εν Κόνων [----- πρὸς ἡλίου ἀνιό]  
 [ντος ἡ ὁδ]ὸς ἡ εἰς [---- φέρουσα ὠνητῆς ---]  
 10 [...<sup>6</sup>...ο]ν Ἀνα[-----]  
 [...<sup>8</sup>...]ΧΑ[-----]

This may be part of the same stele as No. 10.

Lines 4-10: A mine at Thrasykos.

Diophanes, the registrant, might be Diophanes of Sounion, property owner in Maroneia and at Sounion (No. 1, line 51; No. 13, line 68) or Diophanes of Gargettos, owner of a workshop (?) (No. 16, Face A, Col. II, line 73). In either of these cases, the lessee, whose demotic apparently is Anaphlystios, Anagyrasios or Anakaieus (line 10) will not be the same as the registrant.

**12** (Plate 86). Two inscribed fragments of Hymettian marble almost certainly from the same stele. The inscribed face is the only original surface preserved on either piece, but both show signs of reworking. On piece (a), note the drafting line between the last two lines and the horizontally trimmed surface at the bottom, cutting into the letters of the last line. On piece (b), the top is finished smooth and horizontal but again this cuts through the letters of line 1. Both were found in the disturbed



surface of the classical floor of the Agora, northeast of the Tholos, in Section Z; fragment a on May 19, 1937, fragment b on June 5, 1937.

Fragment a: Height, 0.053 m.; width, 0.085 m.; thickness, 0.02 m.

Inv. No. I 4870.

Fragment b: Height, 0.037 m.; width, 0.065 m.; thickness, 0.015 m.

Inv. No. I 4930.

Height of letters, 0.004 m.

The writing is stoichedon with a square checker pattern of which ten units measure 0.071 m.

	Frag. a	ΣΤΟΙΧ.
	[..... <sup>16</sup> .....] ΕΙΤ [-----]	
	[..... <sup>15</sup> .....] ον ἀνα[σάξιμον -----]	
	[..... <sup>12</sup> .....] αικὸν ἐ[-----]	
	[..... <sup>9</sup> ..... Εὐὼ] νυμ: ᾧ γε[ί: -----]	
5	[..... <sup>8</sup> ..... π] ρὸς ἡλίου ἀ[νιόν: -----]	
	[..... <sup>8</sup> .....] νοτόθεν Χαρ[ ----- δνομένον]	
	[ἐργαστήρ] ιον Σίμου Πα[ιαν: ὦνη: -----]	
	[..... <sup>8</sup> .....] ν. . ον Παλλ[ην: -----]	

*lacuna*

	Frag. b
	[..... <sup>12</sup> .....] Λ. ΟΙΣ [-----]
10	[..... <sup>8</sup> ..... πρὸ] s ἡλίου ἀ[νιόν: -----]
	[.. ἡλίου δυο] μέ: Διοφ[-----]

*lacuna*

The letter forms, spacing, marble, and marks of recutting correspond very closely with those in No. 6; but the difference in use of abbreviations and the consistent use of -ον for genitive singular suggest these fragments are from a different stele.

If the horizontal cuttings at the bottom of (a) and at the top of (b) are the two sides of one cutting, fragment b, because of the text, must be from a different column from (a).

Lines 3-7: ---aiikon. For the two iotas in the ending, see No. 32 (= *I.G.*, II<sup>2</sup>, 1587, lines 14-15, and 1588, lines 4-5). Either Diotimos or Philokrates of Euonymon might be restored as property owner. The former owned property named in the boundaries of a concession Hermaikon at Laureion (No. 16 = *I.G.*, II<sup>2</sup>, 1582, lines 65-66), and the latter a workshop listed as the eastern boundary of Athenaikon at Besa (No. 5, line 78). Simos of Paiania is discussed above under No. 5, line 29.

13 (Plates 86-88). Nineteen non-joining fragments of a badly shattered opisthographic stele of Hymettian marble. Seventeen were found in the area of the Bouleuterion Plateia, one a few meters to the southeast of the Plateia and one in late fill in a well in the Bouleuterion Porch. Four were found in ancient contexts: fragment d in the foundation packing for the Fountain House, of the Augustan period, at the south side of the Plateia (*Hesperia*, Suppl. IV, pp. 102-103), part of fragment j in firm ancient earth a few meters further north, and fragments m and n, judging from the cement on them, were once built into the Roman screen wall around the Plateia (cf. *Hesperia*, VI, 1937, p. 168; fragments of two other mining stele were found in this wall, No. 4 and part of No. 16). The rest were found in late or disturbed fills.

Fragments a, f, g, i, k, l, m, n, o, and s, were found during April and May of 1934; b on May 27, 1937; c and d on May 10 and 11, 1935; e, h, p, q, r, and half of j, were all found together in a late disturbance on bedrock at the southeast corner of the Plateia on May 4, 1935; the other half of j, on July 22, 1936.

Unless otherwise stated only the inscribed face of the fragments listed below is preserved.

Fragment a: Two joining opisthographic fragments with an original right edge preserved on face A, left edge on B.

Height, 0.335 m.; width, 0.14 m.; thickness, 0.115-0.117 m.

Inv. No. I 1750a.

Fragment b: An opisthographic fragment broken on all sides.

Height, 0.18 m.; width, 0.14 m.; thickness, 0.115 m.

Inv. No. I 1750j.

Fragment c: Height, 0.066 m.; width, 0.05 m.; thickness, 0.045 m.

Inv. No. I 1750i.

Fragment d: Two joining fragments.

Height, 0.105 m.; width, 0.082 m.; thickness, 0.013 m.

Inv. No. I 1750h + I 2968.

Fragment e: Height of inscribed face, 0.043 m.; width of inscribed face, 0.069 m.; thickness, 0.046 m.

Inv. No. I 1750g.

Fragment f: A fragment made up of two joining pieces, the original left edge preserved.

Height, 0.09 m.; width, 0.06 m.; thickness, 0.047 m.

Inv. No. I 1807 + I 1940.

Fragment g: Height, 0.084 m.; width, 0.055 m.; thickness, 0.012 m.

Inv. No. I 1854.



- Fragment h: Height of face, 0.037 m.; width of face, 0.137 m.; thickness, 0.074 m.  
Inv. No. I 1750b.
- Fragment i: Height, 0.03 m.; width, 0.023 m.; thickness, 0.09 m.  
Inv. No. I 1959.
- Fragment j: A fragment made up of two joining pieces, with inscribed face and original right edge preserved.  
Height, 0.105 m.; width, 0.077 m.; thickness, 0.017 m.  
Inv. No. I 1750f.
- Fragment k: Height, 0.058 m.; width, 0.061 m.; thickness, 0.02 m.  
Inv. No. I 1855.
- Fragment l: Height, 0.075 m.; width, 0.07 m.; thickness, 0.014 m.  
Inv. No. I 1807a.
- Fragment m: Height, 0.036 m.; width, 0.03 m.; thickness, 0.057 m.  
Inv. No. I 1869a.
- Fragment n: Height, 0.061 m.; width, 0.016 m.; thickness, 0.026 m.  
Inv. No. I 1869b.
- Fragment o: The inscribed face and the original left edge are preserved and there is a vacant space below the last line.  
Height, 0.035 m.; width, 0.056 m.; thickness, 0.07 m.  
Inv. No. I 1944.
- Fragment p: Height of inscribed face, 0.046 m.; width of inscribed face, 0.017 m.; thickness, 0.004 m.  
Inv. No. I 1750c.
- Fragment q: Height of inscribed face, 0.019 m.; width of inscribed face, 0.028 m.; thickness, 0.048 m.  
Inv. No. I 1750d.
- Fragment r: Height, 0.04 m.; width, 0.054 m.; thickness, 0.033 m.  
Inv. No. I 1750e.
- Fragment s: Height, 0.05 m.; width, 0.09 m.; thickness, 0.042 m.  
Inv. No. I 1937.

Height of letters (all fragments), 0.004 m.

The writing is stoichedon with a square checker pattern of which ten units measure *ca.* 0.081 m.

Fragment a

Face A

ΣΤΟΙΧ. 32

[.....<sup>26</sup>.....]Η[.....<sup>5</sup>]  
[.....<sup>24</sup>.....]ΙΑ[.....<sup>6</sup>]

- [. ἐκ τῆς στήλης τῆς ἐπὶ Θουδῆ]μο ἄρ[χοντο] 353/2  
 [s .....<sup>19</sup>..... ἐργ]άσι: [. .<sup>5</sup>...]  
 5 [.....<sup>22</sup>.....]στρά[τ]ου Α[...]  
 [.....<sup>9</sup>..... ἐκ τῆς στήλης τῆ]ς ἐπὶ Θε[υ]δ[ήμ]  
 353/2  
 [ο ἄρχοντος .....<sup>14</sup>.....]λο[υ .]λω[...]  
 [.....<sup>11</sup>..... μέταλλον ἐργά]σιμον [....]  
 [----- ὦι γεί: -----]: πρὸ[ς] ἡ[λ]  
 10 [ίου ἀνιόν: τὸ μέταλλον τὸ Διον]υσια[κόν]  
 [πρὸς ἡλίου δυομέ: .....<sup>8</sup>..... κά]μιν[ος . .]  
 [.....<sup>25</sup>.....] καὶ [. .]η[...]  
 [.....<sup>25</sup>.....] <sup>1</sup> <sup>2</sup> [....] <sup>1</sup> <sup>2</sup> [....]  
 [-----]-----  
 15 [.....<sup>29</sup>.....] ΟΣΦ  
 [.....<sup>28</sup>..... παλ]αῖον Φρ  
 [.....<sup>24</sup>.....] ἐν τοῖς ἐδ  
 [ἀφαισιν τοῖς .....<sup>10</sup>.....]ς Φρεαρρ: ὦι γεί  
 [βορρά: .....<sup>10</sup>.....]ρον νοτόθ: ὁ λόφος  
 20 [.....<sup>10</sup>..... ὁ ἡργάσ]ατο Κηρυκίδης ἐκ Κο  
 [λων: .....<sup>10</sup>..... Διο]πείθ[ης] Διοκλείδο  
 [Φρε: .....<sup>9</sup>..... ἀνασά]ξιμ[ο]ν στήλην ἔχο  
 [ν .....<sup>10</sup>..... ἐν τοῖς ἐδά]φει[ς] ν τοῖς Πρω  
 [----- ὦι γεί: βορρά: -----] ἀνης Ἐρχι  
 25 [----- νοτό: -----] ἐργαστή]ριον καὶ σ  
 [.....<sup>8</sup>..... πρὸς ἡλίου ἀνιόν: ἡ χ]αράδρα ἡ  
 [----- ἡλίου δυομέ: -----] ὁ ἡργάζ  
 [ετο .....<sup>25</sup>.....] α: ὦν  
 [η: .....<sup>26</sup>.....] ἐκ τ[ῆ]  
 30 [ς στήλης τῆς ἐπὶ ----- ἄρχοντος -----]

Face B

- 31 ... Ρ[-----]  
 Η... [-----]

*lacuna of eight lines*

- 41 ΙΕ[.....<sup>22</sup>..... ὦι γεί: βο]  
 ρρά[:-----νοτό:-----Σ]  
 ουνι[: ἐργαστήριον ἡλίου ἀνιόν: Διοκλ]  
 έους Σουν[ι: χωρίον πρὸς ἡλίου δυο: Σίμ]  
 45 ου Παιανι: [ἐργαστήριον ὦν: Σίμος Διο]  
 δώρον Παιανι: Δ[Δ: Λυσάνιας Λυσικλέου]



ς Κεφαλῇ: ἀπ[ε]γγ[άφατο μέταλλον παλαιὸν]  
 ν ἀνασάξιμο[ν .....<sup>12</sup>... ἐν τοῖς ἐδά]  
 [φ]ε[σι]ν το[ῖ]ς | [.....<sup>12</sup>...]

*lacuna*

Fragment b

Face A

50 [.....<sup>10</sup>...] | ΦΡΑ[.....<sup>18</sup>...]  
 [.....<sup>9</sup>...]: ἡργ[ά]ζετο .....<sup>14</sup>...]  
 [.....<sup>8</sup>...] ἐργα[στήριον .....<sup>13</sup>...]  
 [.. Σο]νι: ἐργα[στήριον καὶ --- ὠνη: ---]  
 [..]ης Κηφισ[ο]κ[λέους --- μέταλλον ---]  
 55 [...] ακὸν ἐ[π]ὶ Θ[ρασύμωι ἀνασάξι: ἐν τοῖς]  
 [ἐδάφ]εσιν Ἀνδ[ρ --- ὦι γεί: βορρά: ---]  
 [.....<sup>5</sup>...]δον κάμ[ινος .....<sup>17</sup>...]  
 [.....<sup>6</sup>...] | ΔΡΟ[.....<sup>22</sup>...]  
 [.....<sup>7</sup>...] | ΜΗ[.....<sup>22</sup>...]

*lacuna*

Face B

60 [.....<sup>7</sup>...]: Ο[.....<sup>23</sup>...]  
 [ἡλίου ἀ]ν[ιό]ν[ι: .....<sup>21</sup>...]  
 [... ἡλί]ου δυομ[έ: .....<sup>18</sup>...]  
 [.... ὦ]νη: Ἀγνόθ[εος .....<sup>16</sup>...]  
 [Δίφι(?) ]λος Φειδί[π]π[ου Πιθ: μέταλλον ἀπεγ]  
 65 [ράψ]ατο ἐπὶ Σουνί[ωι παλαιὸν ἀνασάξιμον]  
 [Ἄρ]τεμισιακὸν στ[ῆλην ἔχον ἐν τοῖς ἐδάφ]  
 [εσι]ν τοῖς Εὐαγγέ[λον .... ὦι γεί: βορρά]  
 [ : Δι]οφάνης Σου[ν]ι[ : νοτό: .....<sup>12</sup>...]  
 [...] πρὸς ἡλίου ἀν[ιόν: .....<sup>14</sup>...]  
 70 [πρὸ]ς ἡλίου δυομ[έ .....<sup>13</sup>... ὠνη:]  
 [Δίφι]λος [Φειδίππου Πιθ: .....<sup>13</sup>...]  
 [.....<sup>5</sup>...]Ο[.....<sup>26</sup>...]

*lacuna*

Frag. c

[.....<sup>13</sup>...] Σ[.....<sup>18</sup>...]  
 [.....<sup>12</sup>...]ι: πρὸς ἡλίου ἀνιόν: μέτ]

- 75 [αλλον ὁ ἡργάζ]ετο Φαι[...<sup>9</sup>... δνομέ:]  
 [ἡ ὁδὸς ἡ ἀπὸ Λα]υρίου ἐ[πὶ ...<sup>8</sup>... φέρονσα]  
 [ῶνη: ...<sup>5</sup>... Εἰ]ρεσί:Δ[Δ: ...<sup>13</sup>...]  
 [...<sup>9</sup>... ἀ]νασάξιμ[ον ...<sup>13</sup>...]  
 [...<sup>8</sup>... Ἀμφ]ιτροπ[...<sup>14</sup>...]

*lacuna*

Frag. d

- 80 [...<sup>10</sup>...]Ι[...<sup>21</sup>...]  
 [...<sup>10</sup>...]ΩΙ[...<sup>20</sup>...]  
 [...<sup>10</sup>...]ΝΔ[...<sup>20</sup>...]  
 [...<sup>10</sup>...]ΙΟΥ[...<sup>19</sup>...]  
 [...<sup>12</sup>...]Α[...<sup>19</sup>...]  
 85 [...<sup>13</sup>...]Γ[...<sup>18</sup>...]  
 [...<sup>7</sup>...]ν Εὐωνυ: μ[έταλλον ἀπεγράψατο]  
 [ἐπὶ Σουνί]ωι ἐν τ<ο>ῖς [ἐδάφεσιν τοῖς Διοκλ]  
 [έους Σου]νι: ὦι γεί: [βορρά: ...<sup>10</sup>...]  
 [...<sup>10</sup>...]Κόνων Α[...<sup>16</sup>...]  
 90 [...<sup>12</sup>...]ε: ἡρ[...<sup>16</sup>...]  
 [...<sup>13</sup>...]ΧΙΔ[...<sup>16</sup>...]  
 [...<sup>14</sup>...]Ν[...<sup>17</sup>...]

*lacuna*

Frag. e

- [...<sup>7</sup>...]νι: Ν[...<sup>21</sup>...]  
 [...<sup>7</sup>...]ο Φαιδρ[ο ...<sup>18</sup>...]  
 95 [...<sup>5</sup>...]Η: Κηφισο[...<sup>19</sup>...]  
 [...<sup>6</sup>...]: παλαι[ὸν ἀνασάξιμον ἐν τοῖς ἐδ]  
 [άφεσιν τοῖ]ς Αλε[...<sup>20</sup>...]  
 [...<sup>11</sup>...]Ν[...<sup>20</sup>...]

*lacuna*

Frag. f

- [...]ΑΛ[...<sup>28</sup>...]  
 100 [...]λν: Γ[...<sup>26</sup>... Γ]  
 [α]ργήτ[τ: ...<sup>15</sup>...]  
 θεν ὦνη[: ...<sup>24</sup>... Φ]  
 εἰδιπ[ος Φαῦλλον Πιθεὺς ἀπεγράψατο μ]  
 έταλ[λον ...<sup>25</sup>...]

*lacuna*



## Frag. g

- 105 [.....<sup>10</sup>.....] | : | [.....<sup>18</sup>.....]  
 [.....<sup>8</sup>..... Σ] ουνι: [.....<sup>18</sup>.....]  
 [.....<sup>9</sup>.....] ο: ὠνη [.....<sup>17</sup>.....]  
 [.....<sup>9</sup>.....] ΗΗΡ: μ[έταλλον .....<sup>11</sup>.....]  
 [.....<sup>8</sup>.....] \ΙΑΣΤΑΣ [.....<sup>17</sup>.....]  
 110 [.....<sup>9</sup>.....] της νοτ[όθεν ἡ ὁδὸς ἡ .....<sup>7</sup>.....]  
 [.....<sup>6</sup>..... φέρ]ουσα πρ[ὸς ἡλίου .....<sup>10</sup>.....]  
 [.....<sup>5</sup>..... ἐργασ]τήριον [.....<sup>16</sup>.....]

*lacuna*

## Frag. h

- [.....<sup>24</sup>.....] ΗΙΙ / [.....<sup>5</sup>.....]  
 [.....<sup>17</sup>.....] κὸν στήλην ἔχον [.....]  
 115 [.....<sup>23</sup>.....] Κτησικ(λ)ῆς Ο[.....]  
 [.....<sup>29</sup>.....] s Φα  
 [.....<sup>29</sup>.....]: ΔΔ <sup>v</sup> Γ.  
 [.....<sup>30</sup>.....] ΟΥ <sup>v</sup>

*lacuna*

## Frag. i

- [.....<sup>30</sup>.....] Ι Ο  
 120 [.....<sup>30</sup>.....] Λ Ι <sup>v</sup>  
 [.....<sup>30</sup>.....] ΟΧ

*lacuna*

## Frag. j

- [.....<sup>24</sup>.....] \ΩΝΗΥ[.....]  
 [.....<sup>24</sup>.....] τῶν χωρίω  
 [.....<sup>23</sup>.....] as καὶ του  
 125 [.....<sup>25</sup>.....] Γ. ΣΤΝΗ  
 [.....<sup>22</sup>.....] χρ]ηματίσα  
 [.....<sup>24</sup>.....] ησαντος  
 [.....<sup>ca. 24</sup>.....] μηθὲν Δεξ  
 [.....<sup>ca. 24</sup>.....] εον ἀλόντ  
 130 [os .....<sup>ca. 20</sup>..... ἐ]πὶ Ἀριστοδ 352/1  
 [ἥμο ἄρχοντος .....<sup>12</sup>.....] τωι: Χ: εἰ  
 [.....<sup>ca. 26</sup>.....] Ν τῶν Τ  
 [.....<sup>ca. 28</sup>.....] ΜΑΝΕ  
 [.....<sup>ca. 31</sup>.....] Σ

*lacuna*

## Frag. k

- 135 [.....<sup>14</sup>.....]ZO[.....<sup>16</sup>.....]  
 [.....<sup>10</sup>..... Θ(?) ]ουκλήης [.....<sup>15</sup>.....]  
 [ . . . μέταλλο]ν Ἀρτεμ[ισιακὸν ἐπὶ Θρασύμ]  
 [ωι(?) ἐν τοῖς ἐδ]άφε[σιν τοῖς .....<sup>12</sup>.....]

*lacuna*

## Frag. l

- |     | Col. I  | Col. II         |
|-----|---------|-----------------|
|     | -----X  | A-----          |
| 140 | -----ΙΩ | μέ[ταλλον-----] |
|     | -----Α  | ΕΛ-----         |
|     | -----Ρ  | ΧΟ-----         |
|     | -----Θ  | Ο-----          |

*lacuna*

## frag. m

- μω-----  
 145 : ὁδ[ὸς-----]  
<sup>v</sup>βορ[ρᾶ:-----]  
 ΙΣ-----

*lacuna*

## Frag. n

- 150 -- Y --  
 -- P --  
 -- M --  
 -- Σ --  
 -- Ι --  
 -- Κ --  
 -- ΔΩ --

*lacuna*

## Frag. o

- 155 <sup>v</sup>Σ --  
 ΤΧ --  
*vacat*

*lacuna*

## Frag. p

- [. . . . .<sup>5</sup> . . . ἡλίον ἄ]νιό[ν: .....<sup>16</sup>.....]  
 [.....<sup>8</sup> . . . ο]νς Σφ[ηττ: .....<sup>15</sup>.....]  
 [.....<sup>8</sup> . . . ]ΑΝ[.....<sup>21</sup>.....]

*lacuna*



## Frag. q

160                    -- PA --  
                       -- ΕΓ --

*lacuna*

## Frag. r

-- OK <sup>v</sup>  
 -- Σ .

*lacuna*

## Frag. s

165                    [ .....<sup>15</sup>..... ] Ὁῆθ: [ .....<sup>13</sup>..... ]  
                       [ .....<sup>18</sup>..... ἀν]ασάξι[μον .....<sup>9</sup>.....]  
                       [ .....<sup>11</sup>..... ]ον ὦι γεί: β[ορρâ: .....<sup>7</sup>.....]  
                       [ .....<sup>7</sup>..... νοτ]ό: ἡ χαράδρ[α .....<sup>12</sup>.....]  
                       [ .....<sup>10</sup>..... ]ον ὠνη : [ .....<sup>16</sup>.....]  
                       [ .....<sup>10</sup>..... ]ς ΟΛ[ .....<sup>19</sup>.....]

*lacuna*

The archon Aristodemos (352/1 B.C.) is named in line 130, in a part of the text which deals with confiscated property, not with mines. In lines 3 and 6, mines, apparently two, are recorded from the stele of Thoudemos (353/2 B.C). Therefore this stele probably belongs to one of the years between 350/49 and 345/4. See above pp. 199-202 on renewals and length of leases.

Some of the pieces are badly calcinated as a result of burning; this is especially noticeable on Face A of fragment a and on e, j, p, and q. Face B on a and b shows distinct traces of a roughened picked surface, which also is found on fragments h, i, and j. There were at least two columns, more probably three or four, on each face, and part at least of the last column of face B dealt with confiscated property. A 32-letter line can be restored with considerable probability in two of the better preserved pieces, Face B on a and b, and is probably to be restored throughout. Lines 122-134, however, from the last column of face B, are not strictly stoichedon (see photograph, Pl. 88, fragment j); the seven letters in lines 127-129, stoichedon in relation to each other, occupy the space of eight letters in lines 122-124. Other irregularities on the part of the stone cutter are:

Line 18: Last two letters *ει* in space of one.

Line 56: *τοῖς* omitted between *ἐδάφεσιν* and owner's name.

Line 87: An omega by mistake for omicron in *τοῖς*.

Line 115: Lambda apparently omitted in *Κτησικλῆς*.

Thus I do not hesitate to restore thirty-three letters in lines 87 and 96.

Lines 1-30 from the right hand column of face A contain the fragmentary records of five or six leases of which the first two and perhaps the last are of *ergasima* mines; the fifth and perhaps fourth *anasaxima*.

Lines 7-8: One could restore either — — λο[υ 'Α]λω[πεκ|ῆ: εἰσῆνευκε μέταλλον ἐργά]σιμον or — — λο[υ Π]λω[θεὺ|ς εἰσῆνευκεν (or ἀπεγράψατο) μέταλλον ἐργά]σιμον.

Line 20: ἡργάσ]ατο; see No. 4, line 8, for this form. Kerykides is a new name for Attic prosopography.

Lines 21-22: Diopeithes, son of Diokleides, of Phrearrhoi (*P.A.*, 4329) was trierarch in 325/4. The text cannot be restored with any certainty; he is either lessee of the preceding mine or registrant of the following.

Lines 31-49 from the left hand column of face B contain part of the records of two leases.

Lines 43: Diokles of Sounion is known as a property owner at Sounion; cf. No. 5, lines 8, 18, and 32.

Lines 44-45: For Simos son of Diodoros of Paiania, see No. 5, line 29 (and other references in commentary thereto).

Lines 46-47: Lysanias son of Lysikles of Kephale is named as lessee of a mine at Laureion in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 76 ff.).

Fragment b, Face A, lines 50-59: Parts of two leases, one of which is at Thrasymos. The line of break along the top of Face A may be the same line of break as that across the top of the lower half of fragment a. If this be the case this fragment then would be slightly below and to the left of a, and the text would be part of another column.

Fragment b, Face B, lines 60-72, contains the fragmentary records of two concessions of which the second is Artemisiakon at Sounion.

Line 63: The lessee Hagnotheos is perhaps Hagnotheos son of Thrasippos (*P.A.*, 147), brother of Hagnon, who appears as lessee in No. 20, line 42 (cf. also commentary thereto).

Line 64: Pheidippos son of Phayllos of Pithos, father of the registrant, appears more often than anyone else in the mining texts, as registrant or lessee of 6 mines, and as property owner in two other leases. In 367/6 he leased two adjacent unnamed mines at Sounion (No. 1, lines 46-47, 81). He is named as registrant of two mines of which, neither the name nor place is preserved (line 103 of the present text and No. 15, line 42). He owned property at the north of the second of these and can be restored as owner of the property in which the mine was located (No. 15, lines 44-45). He registered an Artemisiakon at Thorikos and can be restored as owner of the workshop at the north (No. 18, lines 70 and 72). In No. 20 he again is found as lessee of one

Artemisiakon and as owner of property to the south of another (lines 25, 28). His property is given as the northern boundary of a mine at Sounion in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 43). And in No. 19, lines 4-9, his workshop is named as part of the southern boundary of an Artemisiakon at Thorikos. (See above pp. 195-196 for the possible identification of some of these mines). His son Diphilos, who has been restored as registrant in the present text, is named as owner of the property in which an Artemisiakon was located and of a workshop to the south of it in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 125, 126). Another son Phayllos could equally well be restored here. Pheidippos, (*P.A.*, 14164), and his two sons Diphilos (*P.A.*, 4485) and Phayllos (*P.A.*, 14129), all served as trierarchs in the third quarter of the century. It now seems relatively clear where their money came from.

Line 67: Diophanes of Sounion was a property owner in Maroneia in 367/6 (No. 1, line 59). He is a member of the well-known family to which Diopeithes the general (*P.A.*, 4327 and *Hesperia*, VII, 1938, p. 14) belonged. He is perhaps uncle of Diophanes son of Diopeithes (*P.A.*, 4413), a prytanis *ca.* 330 B.C.

Lines 73-104, fragments c, d, e, and f, are probably from face A; fragment f preserves an original left edge and therefore belongs in the first column.

Line 75: The last letter is either iota or upsilon; Φάϋ[λλος Πιθε: or Φαῖ[δρος Σφῆτ:] could be restored (cf. lines 64 and 94).

Line 79: Either Ἀμφιτροπ(ῆθεν) or Ἀμφιτροπ(ῆσι); i. e., demotic of the owner of *edaphe* (with τοῖς omitted as in line 56) or location of the mine.

Lines 86-88: See above, line 43, for Diokles, property owner in Sounion.

Line 89: The alpha is probably the first letter of the demotic. A Konon of Anaphlystos (*P.A.*, 8708) was trierarch in the third quarter of the fourth century.

Line 94: Φαιδρ ---, possibly Phaidros (*P.A.*, 13964) son of Kallias of Sphettos, general and trierarch in the third quarter of the century. He can be restored in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 180-181) as lessee of a mine at Thrasymos. His father Kallias (*P.A.*, 7891) leased two concessions in Nape in 367/6 and owned property there (No. 1, lines 42, 48, 65). The Thymochares who appears without demotic on a boundary stone as lessee of an Artemisiakon (*Ath. Mitt.*, LXII, 1937 p. 11, no. 12) may well be a member of this same family (*P.A.*, 7411-13).

Line 103: See above, line 64.

Lines 105-134, fragments g, h, i, and j, are all assigned to face B. The right end of a column is preserved on h and i. Fragment j, with the right edge preserved, belongs in the last column.

Lines 122-134: Compare No. 1, lines 6-39, and No. 16 (*Hesperia*, V, 1936, pp. 398-403, lines 10-203) for similar texts dealing with confiscated property sold by the poletai.

Line 129: For ἀλόντ[ος] see No. 1, lines 13 ff.



The remaining nine fragments, k through s, lines 135-169, give no indication of the face to which they belong. I have placed fragment s, lines 163-169, at the end because of some hesitation over whether it belongs to this stele: it was found outside the area of the Bouleuterion Plateia and could belong equally well to No. 14.

**14** (Plate 89). Two fragments of an opisthographic stele of Hymettian marble. Fragment a, made up of two joining pieces found in modern context in section  $\Xi$  on March 21 and 22, 1935, has an original edge, the left on Face A, the right on B. Fragment b, found in late fill in section N on March 12, 1936, preserves only one inscribed face; it makes a textual but not physical join with Face A of Fragment a.

Fragment a: Height, 0.23 m.; width, 0.27 m.; thickness, 0.128-0.130 m.  
Inv. No. I 2639.

Fragment b: Height, 0.213 m.; width, 0.11 m.; thickness, 0.079 m.  
Inv. No. I 3738.  
Height of letters, 0.004 m.

The writing is stoichedon set in a square checker pattern of which ten units measure 0.082 m.

Face A	ΣΤΟΙΧ. 40
	[..... <sup>30</sup> ..... πρὸς ἡλίου δ]
	[νομέν]: Φιλίνου ἐργασ[τήριον ὦνη: ..... <sup>12</sup> .....]
	[...] του Θυμαϊτά: ΔΔ: μέ[ταλλον παλαιὸν ἀνασάξιμ]
	[ον] Νυμφαϊκὸν στήλην ἔχ[ον Μαρωνεῖαι ἐν τοῖς ἐδάφ]
5	εἰσιν τοῖς Αὐτοφάκτον[ω γεί: βορρά: χωρίον Λυσι(?)]
	θείδου καὶ ἡ χαράδρα ἡ[..... <sup>20</sup> ..... νο]
	[τό] <sup>ν</sup> Αὐτοφάντου Κυθή[ρρ: ἐργαστήριον πρὸς ἡλίου]
	[άν]ιόν: Διοφάνους Γ[αργητ: (?) ἐργαστήριον ὦνη: ...]
	[.] οφῶν Ξενοκλέους   [.....]: Δ[Δ: ..... <sup>11</sup> ..... μέταλ]
10	λον ἀνασάξιμον Ἡρ[ωι]κὸν στή[λην ἔχον ἐν τοῖς ἐδάφ]
	εἰσιν τοῖς Τιμησί[ον Σ]ουνι: ο(ἶ)ς [γεί: βορρά: Διοδώρ(?)]
	ου Παιανι: ἐργα[στήρι]ον νοτόθ[..... <sup>14</sup> .....]
	ἐργαστήριον π[ρὸς ἡλίο]ν ἀνιόν[: ..... <sup>14</sup> .....]
	πρὸς ἡλίου δυο[μέ: ..... <sup>6</sup> .....] οχ[..... <sup>13</sup> ..... ὦνη:]
15	Πανσίστρατο[ς Φιλιστίδου Αἰξω: .. : Διοχάρης Δι]
	οκλέους Πιθε[: ἀπεγράψατο μέταλλον παλαιὸ]ν ἀν[α]
	σάξιμον στήλ[ην ἔχον ..... <sup>12</sup> ..... ἐπὶ Σο]υνίωι ἐ
	ν τοῖς ἐδάφε[σιν τοῖς ..... <sup>14</sup> .....] ὦι γεί: βορ

- χωρία Διοχ[άρους νοτόθ: ἡ ὁδὸς ἡ ἀπὸ ...]ρωνείου εἰ  
 20 s Πάνορμ[ον φέρουσα .....<sup>15</sup>.....]ἐργαστήρ[:]  
 πρὸς ἡλί[ου δυομέ: ...<sup>7</sup>... ἐργαστήρι]ον τιμή: Δ[Δ]  
 [.]<sup>11</sup> [.....<sup>17</sup>..... ἀπεγράψατο] μέταλλον[.]  
 [.....<sup>31</sup>.....]ι στήλην ἔ[χ]  
 [ον ἐν τοῖς ἐδάφεσιν τοῖς .....<sup>11</sup>...]νε: ὧι γε[ί:]  
 25 [βορρά: --- νοτό: ---]ος Σουνι: π[ρ]  
 [ὸς ἡλίου ἀνιόν: .....<sup>18</sup>... ἐργα]στήριον δ[νο]  
 [μέ: .....<sup>23</sup>... ἐργ]αστήριον τ[ιμ]  
 [ή: ...: .....<sup>19</sup>... Φρεάρ]ρι: ἀπεγρά[ψα]  
 [το μέταλλον .....<sup>16</sup>... Ἀθη]ναικὸν στή[λη]  
 30 [ν ἔχον ἐν τοῖς ἐδάφεσιν τοῖς Λεωχά]ρου[s] Κοπρεῖ[: ὧ]  
 [ι γεί: βορρά .....<sup>10</sup>... ἐργαστή]ριον Λεωχ[ά]ρ[ου]  
 [s --- νοτό: --- Δ]εωχάρους: π[ρὸς]  
 [ἡλίου ...<sup>5</sup>... ἡ ὁδὸς ἡ ἀπὸ ...<sup>7</sup>...] φέρουσα τ[.....]  
 [.....<sup>30</sup>.....]ην αγο[...<sup>5</sup>...]  
 35 [.....<sup>21</sup>..... ἐν τοῖς ἐδά]φει[ν τοῖς .]

Face B

ΣΤΟΙΧ. 40

- 36 [.....<sup>25</sup>.....]Ο[.....<sup>14</sup>.....]  
 [.....<sup>24</sup>.....] πρὸς ἡλί[ου ...<sup>7</sup>...]  
 [.....<sup>21</sup>..... Αἰν(?) ]ησιστρατ[ο ...<sup>7</sup>...]  
 [.....<sup>17</sup>.....]Ι[.] ΑΙΕΛΛΗΝΑΠΤΑΙΔΑΣ [...<sup>7</sup>...]  
 40 [...<sup>11</sup>... τῶι] δημοσίῳ καὶ ἐκγεγραμμ[ένου ἐν]  
 [ἀκροπόλει: κ: Ε]ὔδιος Μελιτ: Ἀρχίας Κόπρει[: ...]  
 [...<sup>12</sup>... τ]ῇ πόλει τὰ τρίτα μέρη τιμή ΤΗ[...]  
 [...<sup>18</sup>... ὠνη: Διομέδων Διομνήστου Ἀχα]ρ[ν]  
 [...<sup>7</sup>... τάδε ἐπρ]άθη ἀθρό[υ]ας τῆς τιμῆς ἐπ[ὶ] τῆς Ἀ[ν]  
 45 [τιοχίδος ἐνάτης (οἱ ὀγδόης)] πρυτανείας Μουνιχιῶνος δικα[σ]  
 [τήριον τὸ Παράβυστ]ον κυρωτής *vacat*  
 [...<sup>18</sup>... Α]ἰγίλι: ἀπέγραψεν Καλλι[...]  
 [...<sup>16</sup>... χωρίον(?) ]καὶ οἰκίαν τῷ Βιωνεῖο  
 [...<sup>24</sup>... ]λίον ἔχουσιν ἵππος  
 50 [τάσιον(?) .....<sup>18</sup>... θ]υγατέρα τοῦ Βουτά  
 [...<sup>24</sup>... ὧι] γείτ: βορράθε[ν .]  
 [...<sup>27</sup>... ]<sup>10</sup> [.....<sup>10</sup>...]

Face A: The last letter of the column is preserved on fragment b, lines 17-19; the fact that the stone is broken along this edge clearly suggests that the stele had at least two, probably more, columns on each face. The thirty-five preserved lines

from column I contain the record of six or seven leases. Note that in the three cases where the price is preserved in whole or part (lines 3, 9, and 21) it seems to be twenty drachmai.

Lines 3-9: Nymphaikon at Maroneia(?) ; see No. 5, lines 53-58, an earlier lease of perhaps the same concession. The price and absence of registrant would suggest that the earlier lease or claim had lapsed before the present lease. In line 5 the text reads *Αυτοφώντος* with an upsilon written over the sigma at the end. With the name Autophantos appearing below in line 7, it seems probable that the owners of *edaphe* and workshop are the same, i. e., Autophantos of Kytherros. In line 5 the stonecutter wrote the familiar Autophon, and corrected only the last letter. I have found no other example of Autophantos, but such names as Diophantos and Antiphantos are well known. For Lysitheides, see No. 6, line 10. For Diophanes of Gargettos see below No. 16 (Face A, II, lines 73-74). A Xenokles of Kopros (*P.A.*, 11225) is known as owner of a workshop at Besa (Isaeus III). One could restore *Κ[όπρε]*: in line 9, and assume that the lessee was the son of that Xenokles.

Lines 9-15: Heroikon (or Heraikon). The location to be restored in line 9 could be either *ἐπὶ Θρασύμωι, ἐπὶ Λαυρείωι, or ἐν Μαρωνείαι.*

Line 11: Timesios of Sounion, owner of the *edaphe*, is perhaps to be identified with the Timesios, without demotic, named as property owner in Nape (No. 1, line 57). Diodoros son of Simos of Paiania was trierarch in the third quarter of the century (*P.A.*, 3953); the tentative restoration is suggested here because his father Simos appears elsewhere in these texts as lessee and owner of a workshop (see commentary on No. 5, line 29). The lessee has been identified with Pausistratos son of Philistides (*P.A.*, 11743), named on a list of the mid fourth century; for the demotic see *Hesperia*, V, 1936, p. 410, where his brother was acting as bondsman *ca.* 343.

Lines 15-21: A mine with a twelve letter name at Sounion. Compare the following text, No. 15, lines 23-29: the record of a mine, also of 12 letters, with the northern and southern boundaries the same as in this text. Diochares son of Diokles of Pithos can be restored as lessee in both texts and as registrant here. The price in this text is 20 drachmai, in No. 15, at least 150 drachmai. The owner of the *edaphe* in the two texts could be the same assuming that an abbreviated demotic was included in one and not in the other. The eastern and western boundaries do not seem to correspond. Thus the evidence is insufficient to decide whether the two leases are of the same concession or of contiguous ones. I am inclined to take the latter choice because the stones seem closely contemporary, perhaps from consecutive years, and so with an interval too short for a renewal. Diochares of Pithos is hitherto unknown. His father Diokles was a prominent Athenian of the first half of the fourth century, served as trierarch in 377/6 (*I.G.*, II<sup>2</sup>, 1604, 91; cf. *P.A.*, 4048; to the references



there should be added *Hesperia*, IV, 1935, p. 167, no. 28, line 5), and is named as property owner in Nape in 367/6, (No. 1, lines 48-49 and 58).

Line 19: Perhaps [ἡ ὁδὸς ἡ ἀπὸ Μα]ρωνείου, either a variant of or error for *Μαρωνείας*. See, however, No. 5, line 33, where a road from Thrasymos Μ[α]ρωνάζε is named. The geographical requirements in the two texts lend support to the suggestion that the same place is referred to, probably the town or district of Maroneia, the site of the famous silver strike in the early fifth century.<sup>58</sup>

Line 21: For *τιμή* see below, line 27, and No. 15, lines 36, 41, and 47. This form of registration is probably a variant of the form in which registrant and lessee are the same person (see above, p. 197). This record and that in lines 3-9 seem both to be new concessions leased for twenty drachmai.

Line 28: Three lessees from Phrearrhoi with name and patronymic in 19 letters are known: Diopeithes son of Diokleides (No. 13, line 21); Timokleides son of Hypsichides (No. 16 = *I.G.*, II<sup>2</sup>, 1582, lines 118, 122); and Kephisophon son of — 10 — (No. 20, lines 16-17). The texts are too fragmentary to suggest any connections.

Face B, lines 36-52. With part of the right edge of the stone preserved, these lines are from the last column. They contain the fragmentary records of two sales of confiscated property.

Lines 40-41: See No. 16 = *Hesperia*, V, 1936, pp. 401-402, lines 149-150 and 159-160. The person in question apparently owed a fine to the public treasury and had been so listed on the acropolis. The kappa is restored from the parallel phrase (*loc. cit.*, line 150); but I suggest that in both places it is an abbreviation for *κλητῆρες*, not for *κυρωταί*. Compare No. 1, line 15, where two *κλητῆρες* are named. Eudios of Melite is known from a catalogue of the tribe Kekropis, *I.G.*, II<sup>2</sup>, 2383, of ca. 360-350 B.C. Eudios is the only fourth century name in Melite ending in -dios or -aios listed in *P.A.*, a fact which supports the forty letter line, which, already established on face A, one would normally expect also on this face since the letter units are of the same size.

Line 42: The offender seems to owe three parts to the city. For a similar use of *τιμή* "penalty," see No. 16 (= *Hesperia*, V, 1936, p. 402, line 183).

Line 43: The purchaser of the confiscated property Diomedon son of Diomnestos of Acharnai was a brother of Diotimos (*P.A.*, 4383) son of Diomnestos (*P.A.*, 4073) known from a grave stone of the second half of the fourth century. See commentary on No. 5, line 72, for their possible relationship to Diotimos son of Mnesistratos of Acharnai.

Lines 44-46: With a line of forty letters (see above, lines 40-41) the Para-

<sup>58</sup> Aristotle, *Ἀθ. Πολ.*, 22, 7. Maroneia would then be somewhat further south than the position suggested on his map by Ardaillon. Both Panormos and Maroneia may have been part of the deme of Sounion.

byston is the only name of a court I have found that will fit the space (Lipsius, *Das Attische Recht*, I, pp. 167 ff.). The Eleven brought cases before the Parabyston (Pollux, VIII, 121), and the Eleven handed over confiscated property to the poletai (Aristotle, *Ἀθ. Πολ.*, 52, 1, and *Hesperia*, X, 1941, p. 14, lines 6-7). Therefore it seems logical enough to have a case before the Parabyston reported in a poletai record. The *δικαστήριον τὸ Παράβυστον* is named in a fragmentary Delian Amphictyony record of the mid fourth century (*I.G.*, II<sup>2</sup>, 1646, line 12).

In the record of 367/6 (No. 1) no court was named; the poletai sold property received from the Eleven (lines 6-7), which had been confiscated as a result of a charge of sacrilege, and the defendant did not await his trial.

In No. 16 (342/1[?]) confiscations resulting from an *εἰσαγγελία* were handled in the [*δικαστήριον*] *πρώτον τῶν καιν[ῶν]*; cf. *Hesperia*, V, 1936, p. 398, lines 12-13. In the same text confiscations following mishandling of tax farming and collection of sacred money were handled in the *δικαστήριον τὸ μέσ[ον τῶν καινῶν]*; cf. *Hesperia*, V, 1936, p. 401, lines 116-117. It is interesting to note that these two types of cases were handled in the same court, for Demosthenes specifically states (XXIV, 96) that if those in charge of sacred or public money fail to make the proper payments the senate shall bring action against them "using the tax collectors' laws": *χρωμένην τοῖς νόμοις τοῖς τελωνικοῖς*. According to Aristotle, *Ἀθ. Πολ.* 52, 3, the apodektai bring into court cases involving tax farmers. He does not name the court, but it well may be the *δικαστήριον τὸ μέσον τῶν καινῶν*.

Line 46: The name of the *κυρωτής*, "ratifier," is omitted.

Lines 47-52: These lines seem to contain the fragmentary description of the property involved in the second case.

Line 48: Following the mention of property and house registered for confiscation one would expect the location (cf. No. 16 = *Hesperia*, V, 1936, pp. 401-403, lines 119, 155, 187). I can find no name corresponding with the letters ΤΟΒΙΩΝΕΙΟ.

**15** (Plate 90). Five fragments of Hymettian marble probably from the same opisthographic stele. Fragment a, the only one which preserves two inscribed faces, is made up of three joining pieces, of which one was found in a late wall in section E on Oct. 5, 1933, the second in section B in late fill north of the Tholos on March 9, 1934, and the third in late fill in section Ξ on Feb. 5, 1935. Fragment b was found in late fill in section Ξ on March 22, 1933. Fragments c, d, and e were all found in section B: c, in late fill south of the Tholos on April 18, 1934; d among the marbles from the section on May 29, 1934, and e above the Tholos floor on March 16, 1934. No original edges are preserved.

Fragment a: height, 0.275 m.; width, 0.13 m.; thickness, at top, 0.119 m.; at bottom, 0.115 m.

Inv. No. I 1095 + I 2381.

Fragment b: height, 0.064 m.; width, 0.038 m.; thickness, 0.036 m.  
Inv. No. I 2639b.

Fragment c: height, 0.045 m.; width, 0.065 m.; thickness, 0.025 m.  
Inv. No. I 631b.

Fragment d: height, 0.085 m.; width, 0.10 m.; thickness, 0.06 m.  
Inv. No. I 631e.

Fragment e: height, 0.075 m.; width, 0.15 m.; thickness, 0.042 m.  
Inv. No. I 1577.

Height of letters (all fragments), 0.004 m.

The letters are stoichedon, set in a square checker pattern of which ten units measure 0.08-0.082 m. The unit and the letter forms correspond with those of the preceding text. It is possible that they are from the same stele, with No. 15a from the upper thinner part of the stele. Because of a possible repetition of a concession (lines 15-21 on No. 14 and 23-29 here) I have given them separate numbers. Fragments b-e can be assigned equally well to either No. 14 or No. 15.

Frag. a

Face A

ΣΤΟΙΧ. 40

[.....<sup>13</sup>.....] | [.....<sup>26</sup>.....]  
 [.....<sup>12</sup>.....] Σ ΘΕΟ [.....<sup>24</sup>.....]  
 [.....<sup>9</sup>.....] ΤΟ [Γ] Σ ΤΩΝ [.....<sup>24</sup>.....]  
 [.....<sup>9</sup>.....] ΛΑΙ ΧΡΟ [.....<sup>24</sup>.....]  
 5 [.....<sup>9</sup>.....] ΡΙ Λ. ΟΕ Π [.....<sup>24</sup>.....]  
 [.....<sup>8</sup>.....] ο ν 'Αχα [ρ] ν : | [.....<sup>23</sup>.....]  
 [.....<sup>9</sup>.....] μέταλλον [.....<sup>28</sup>.....]  
 [ . ἐν τοῖς ἐδ] ἀφεσι τ [οῖς ----- ὧι γεί -----]  
 [πρὸς ἡλίου] ἀνιόν : | [.....<sup>24</sup>.....]  
 10 [.....<sup>9</sup>.....] Σ Σίφνι : [.....<sup>24</sup>.....]  
 [.....<sup>7</sup>..... Φι (?) ] λοκλέον [ς .....<sup>23</sup>.....]  
 [.....<sup>6</sup>..... Πει] ραι : ΗΡ [ : .....<sup>24</sup>.....]  
 [.....<sup>9</sup>.....] ον ἐν τ [οῖς ἐδάφεσιν τοῖς .....<sup>11</sup>.....]  
 [ . . . ὧι γεί : ] βορρά [ : .....<sup>25</sup>.....]  
 15 [.....<sup>7</sup>..... Ν] ικηρ [άτου .....<sup>24</sup>.....]  
 [.....<sup>8</sup>.....] ος Κ [α] λλ / [.....<sup>21</sup>..... πρὸς]  
 [ἡλίου ἀ] νιόν [ : ] ἐργαστή [ριον .....<sup>18</sup>.....]  
 [ . . . : ] : Βή [σ] ησι ἀνασά [ξιμον .....<sup>17</sup>.....]  
 [ . . . ] ὧι γ [ε] ι : βορρά : Σ [.....<sup>22</sup>.....]  
 20 [ . . . ] ρος Π [α] ιανι : νοτό [ : .....<sup>14</sup>..... πρὸς ἡλί]  
 [ον ἀν] ιόν : 'Ασπέτο [ν] Κν [θηρρ : .....<sup>18</sup>.....]



- [πρὸς] ἡλίου [δυ]ομέ: ἐρ[γαστήριον — — — ὠνη: — — —]  
 [ . . . ]ς Κηφισοδότου Α[ἰθα: . . . μέταλλον . . .<sup>8</sup> . . .]  
 [ . . . ]ν ἐν τοῖς [ἐ]δάφεσι[ν τοῖς . . .<sup>11</sup> . . . ὦι γεί: β]  
 25 [ορρ]ᾶ: Διοχά[ρ]ης Πιθε[ : νοτό: ἡ ὁδὸς ἡ ἀπὸ . . ρωνεῖο]  
 [ν εἰ]ς Πάνορμο[ν] φέρου[σα . . .<sup>21</sup> . . .]  
 [ . . . ]έου πρὸς ἡ[λί]ου δυ[ομέ: . . .<sup>19</sup> . . .]  
 [ . . . Σ]ουνιῶς σ[τή]λην ἔχ[ον ὠνη: Διοχάρης Διοκλέου]  
 [ς Πιθ(?) : ] Η<sup>Δ</sup>: μέτα[λλ]ο[ν] Β[ήσησι . . .<sup>18</sup> . . .]  
 30 [ . . .<sup>5</sup> . . . ] ὦι γεί: β[ορρᾶ: . . .<sup>23</sup> . . .]  
 [ . . .<sup>6</sup> . . . ] ὁ λόφος ! [ . . .<sup>27</sup> . . .]  
 [ . . .<sup>6</sup> . . . ]ρίας Αἰσ[ . . .<sup>27</sup> . . .]  
 [ . . . . μέτ]αλλον Β[ήσησι . . .<sup>22</sup> . . .]  
 [ . . .<sup>11</sup> . . . ] Γ Γ [ . . .<sup>27</sup> . . .]

*lacuna*

Frag. a

Face B

ΣΤΟΙΧ. 40

- 35 [ . . . ἐργαστ]ήριον [ . . .<sup>26</sup> . . .]  
 [ . . .<sup>8</sup> . . . ] Ἀ ον τιμή[ : . . .<sup>12</sup> . . . μέταλλον ᾶ]  
 [πεγράψα]το Ἀναφλυ[στοῖ . . .<sup>8</sup> . . . παλαιὸν ἀνασάξ]  
 [ιμον στ]ήλην ἔχον [ἐν τοῖς ἐδάφεσιν τοῖς . . .<sup>8</sup> . . .]  
 [ . . .<sup>5</sup> . . . ] οἷς γεί: β[ο]ρ[ρᾶ: — — — — — νοτό: — — — — —]  
 40 [ . . . ]ς Σφήττι: πρὸς ἡ[λίου ἀνιόν: . . .<sup>13</sup> . . .]  
 [ . πρὸς] ἡλίου δυομέ: Να[ . . .<sup>14</sup> . . . τιμή(?) : . . .]  
 [Φείδι]ππος Φαύλλον Πιθ[ε: ἀπεγράψατο μέταλλον . .]  
 [ . . .<sup>5</sup> . . . ]ι παλαιὸν ἀνασάξι[μον . . .<sup>8</sup> . . . στήλην ἔχο]  
 [ν ἐν τοῖς] ἐδάφεσιν τοῖς Φ[ειδίππου Πιθ: ὦι γεί: βο]  
 45 [ρ: Φείδιπ]πος Πιθ: νοτόθ[ : . . .<sup>13</sup> . . . πρὸς ἡλ]  
 [ίου ἀνιόν:] Νικήρατος Κ[υδαντ: πρὸς ἡλίου δυομέ:]  
 [ . . .<sup>9</sup> . . . ] Προσπάλ: τ[ιμή : . . .<sup>15</sup> . . .]  
 [ . . . μέταλλ]ον ἀπεγρά[ψατο . . .<sup>19</sup> . . .]  
 [ . . .<sup>9</sup> . . . ] στήλην ἔ[χον ἐν τοῖς ἐδάφεσιν τοῖς . . .]  
 50 [ . . .<sup>9</sup> . . . ] Ζοινοῦ Α[ . . .<sup>24</sup> . . .]  
 [ . . .<sup>9</sup> . . . ] ηθευ[ . . .<sup>24</sup> . . .]  
 [ . . .<sup>10</sup> . . . ] της [ . . .<sup>27</sup> . . .]  
 [ . . .<sup>8</sup> . . . ] πρ[ὸς ἡ]λίου . . .<sup>23</sup> . . .]  
 [ . . .<sup>10</sup> . . . ] ΔΙ [ . . .<sup>27</sup> . . .]  
 55 [ . . .<sup>11</sup> . . . ] Σ [ . . .<sup>28</sup> . . .]  
 [ . . .<sup>11</sup> . . . ] Ε [ . . .<sup>28</sup> . . .]

*lacuna*

## Frag. b

[-----] O [-----]  
 [-----] Δ I [-----]  
 [-----] ακὸν [-----]  
 [-----] ΛΕΙΣ [-----]  
 60 [-----] Ε I [-----]  
 [-----] Π [-----]

*lacuna*

## Frag. c

[.....<sup>11</sup>.....] ΗΣ I [.....<sup>26</sup>.....]  
 [.....<sup>10</sup>.....] ην Δημο [.....<sup>24</sup>.....]  
 65 [.....<sup>7</sup>.....] πρὸς ἡλίου ἀν[ιόν: .....<sup>18</sup>.....]  
 [.....<sup>8</sup>..... Δει]ραδι: Η I [.....<sup>21</sup>.....]  
 [.....<sup>8</sup>..... ἀνα]σάξιμον [.....<sup>22</sup>.....]  
 [ἐν τοῖς ἐδάφεσ]ιν τ[οῖς .....<sup>23</sup>.....]

*lacuna*

## Frag. d

[.<sup>2</sup>. ἐν τοῖς] ἐδά[φειν τοῖς -----]  
 70 [.<sup>5</sup>...] μοκράτο[υς -----]  
 [.<sup>4</sup>... πρ]ὸς ἡλίου [-----]  
 [.....<sup>9</sup>.....] I Σ I Γ I [-----]  
 [.....] ι: Εὐ[-----]

*lacuna*

## Frag. e

[ἐργαστήρι]ον νοτό[:] Η[.....<sup>10</sup>..... πρὸς ἡλίου ἀνιό]  
 75 [ν: ἡ ὁδὸς ἡ ἀπὸ Δ]αυρείον δν[ομέ: .....<sup>15</sup>.....]  
 [.....<sup>12</sup>..... ὠνη]: Μειδίας [.....<sup>17</sup>.....]  
 [.....<sup>17</sup>.....] ιθεος Φ[----- μέταλλον]  
 [ἀπεγράψατο -----] ρα[.....<sup>19</sup>.....]

*lacuna*

Fragment a, Face A, lines 1-34, contains the records of perhaps six leases.

Line 10: For --ς Σίφνι see No. 5, line 2, and No. 20, lines 3-4.

Line 15: For [Ν]ικηρ[άτου] see below, line 46.

Lines 18-23: A mine at Besa. Aspetos of Kytherros of line 21 (*P.A.*, 2638) was secretary in 340/39, and his son Demonstratos (*P.A.*, 3623) was trierarch in 325/4. His father Demonstratos was owner of a furnace named as northern boundary of a

mine at Laureion in 367/6 (No. 1, line 54). In No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 55) Aspetos, without patronymic or demotic, is named as owner of a workshop which was the eastern boundary of Eudoteion at Laureion; he probably is the same man. In the present text the type of property owned by him is undeterminable. Kephisodotos of Aithalidai of line 23, father of the lessee, leased two mines in 367/6, one of which was at Laureion (No. 1, lines 56-57), and the other Archegeteion at Besa (No. 1, line 76). He probably is to be identified with the Kephisodotos of Aithalidai who served as arbitrator for the Salaminioi at Sounion in 363/2 (*Hesperia*, VII, 1938, no. 1, line 8) and will be one of the two or three Kephisodotoses of Aithalidai known for the mid fourth century; *P.A.*, 8321, son of Apolexis, who made a dedication to Athena, and *P.A.*, 8322 and 8323, one the father of Konon, the other the son of Kyna. . . . , both named on a double statue base on the Acropolis (*I.G.*, II<sup>2</sup>, 5391). It may be noted that Demonstratos of Kytherros, father of Aspetos, was owner of a furnace named in the boundaries of a mine at Laureion leased by Kephisodotos.

Lines 23-29: See No. 14, lines 15-21, and commentary thereto.

Line 32: See No. 5, line 68.

Fragment a, Face B, lines 35-55, contains the records of four or five leases.

Line 36: For *τιμή* see No. 14, lines 21 and 27.

Lines 42-47: A mine in eight letters. Either [*Θορικο*]ι or [*ἐν Νάπη*]ι could be restored as the place in lines 42-43. For Pheidippos of Pithos see commentary on No. 13, line 64. Nikeratos of Kydantidai (see above, line 15, and No. 19, lines 24, 25) was owner of *edaphe* and unspecified property at Maroneia. He is to be identified with Nikeratos (*P.A.*, 10742), trierarch in the third quarter of the century. His father Nikias (*P.A.*, 10809) appears as property owner in Nape in 367/6 (No. 1, lines 41-42, 58). They are grandson and great-grandson of Nikias the general who had the greater portion of his large fortune in the silver mines (Plutarch, *Nicias*, IV, 2).

Lines 57-80: The four small pieces can be assigned with equal probability to either face of this stone or to No. 14. Meidias in line 76 is perhaps to be identified with Meidias son of Kephisodoros of Anagyrous (*P.A.*, 9719), the prominent wealthy man attacked by Demosthenes, XXI. He is named in the boundaries of two mines in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 44, 82). His brother Thrasylochos (*P.A.* 7347), trierarch in 361, leased two mines in 367/6 (No. 1, lines 49, 51-52).

**16** (Plates 91-92). *I.G.*, II<sup>2</sup>, 1582, and *Hesperia*, V, 1936, pp. 393 ff. no. 10, and three small fragments hitherto unpublished. Six fragments from an opisthographic stele of Hymettian marble, of which three have been published, *I.G.*, II<sup>2</sup>, 1582 (fragment a) and *Hesperia* V, 1936, p. 393, no. 10 (b and c). All were found in the Agora.



Fragment a was found in May of 1908 during the Greek excavations east of the Theseion (i. e., in the region of the Metroon and the temple of Apollo Patroos) used as a cover slab for a late pithos (*Ath. Mitt.*, XXXV, 1910, p. 274). The others were found during the American excavations. Fragment b was built into the Roman screen wall around the Bouleuterion Plateia (see above p. 191, n. 6) and fragment c was found in late fill east of the Tholos. Of the three new fragments now assigned to this stele, d was found on April 19, 1934, in section B in a late context about 20 meters south of the Tholos; fragment e was found in a late Roman context some 25 meters further south, in section Γ, on April 12, 1934; and fragment f was found in a modern wall in the southeastern part of the Agora, in section Δ, on March 20, 1934.

The two large pieces, a and b, join (see photograph, Plate 91). The stele had been cut down the center in later times and the edges considerably battered and chipped in the process; so the surface of the actual join is very small, at the most only several square centimeters. Fortunately some of the text is legible on both sides of the join and confirms the position. The two as joined preserve the original sides of the stele, but both are broken at top and bottom.<sup>59</sup>

There are four columns on each face. All the legible text in the four columns of Face A,<sup>60</sup> and the first column and the first 10 lines of the third column (the second is illegible) of Face B apply to mining leases; the rest of the third column and the fourth column on B record the sales of confiscated property. The stele was the record of the poletai for one year, probably of the year 342/1, but possibly of 341/0 or 339/8 (see above pp. 199-202 on the length of leases).

This stele preserves far more text than any of the others in this series. The stones as actually preserved give a minimum of 130 lines to a column on Face A, and of 110 on Face B.<sup>61</sup> Allowing  $5\frac{1}{2}$  lines for the record of each lease, the four columns of Face A would have contained the records of about 96 leases, not including those on the missing pieces above and below, and the two and a fraction columns of B, assigned to the mines, perhaps of 45 leases. The legible and partly legible texts actually contain the records of about 61 leases (see the chart on p. 286, below).

The texts are not being republished, but some new restorations and variant readings are offered.<sup>62</sup>

<sup>59</sup> Dimensions of the two as joined: preserved height, 0.735 m.; width, 1.065 m.; thickness 0.09-0.094 m. Note that the position of the join is approximately that suggested by Meritt, *Hesperia*, V, 1936, p. 395.

<sup>60</sup> I am using the nomenclature of the faces as given in the *Editio Minor* publication, rather than that of *Hesperia*, V, where A and B were reversed.

<sup>61</sup> Both faces are stoichedon. On A there are 39 letters to a line and they are set in a square checker pattern of which ten units measure *ca.* 0.067 m. On B there are 35 letters to a line set in a square checker pattern of which ten units measure 0.075 m. The maximum preserved height of 0.735 (on fragment b) demands *ca.* 111 lines on face A. To these must be added the 14 preserved lines on the non-joining fragment (*Hesperia*, *loc. cit.*).

<sup>62</sup> For convenience of reference the line numbers of the original publications are used both in

Face A, Column I. *Hesperia*, V, no. 10, face B, lines 206-308, on fragments b and c (lines 1-103). No names of mines are preserved in the 87 lines on the large piece. The classification of the second record can be restored as [πα|λ]αιὸν ἀ[νασάξιμον] in lines 207-208. The location of the fourth is preserved in Σουνίῳ in line 219. The Σο|υνι — of the preceding line is probably demotic of registrant or lessee. A location also at Sounion is probable in lines 262-263 which can be restored:

ἔχον ὦι [γεί: .....<sup>23</sup>..... ἡ ὁδὸς ἡ ε]  
 ἰς Πάνο[ρ]μο[ν φέρουσα —————].

In No. 14, lines 15-21, a road to Panormos is named in the boundaries of a mine at Sounion. Lines 295-308 preserved on the small non-joining fragment contain the record of three leases. The price of 6100 drachmai (line 299) is much the highest price found in these inscriptions; therefore it is peculiarly vexing that no consecutive text is preserved. Lines 299-303 may be restored tentatively:

ν: Φηγα: ΤΗ: ΠΑΛΙΚΚΛ: Γ [.....<sup>14</sup>..... ἀπεγράψα]  
 το μέ[τα]λλον παλαιὸν [ἀνασάξιμον Ἀμφιτροπήσιν]  
 [σ]τήλ[ην] ἔχον Δημητρι[ακὸν ὦι γεί: βορ: .....<sup>10</sup>.....]  
 .α: [νο]τό: Χαρίν[ο]ν χω[ρίον ἡλίου ἀνιόντ: ἡ ὁδὸς ἡ Βήσ]  
 [αζε φ]έ[ρ]ουσα: πρὸς ἡ[λίον δυομέ .....<sup>15</sup>.....]

The restorations are made on the assumption that this mine is in the same area as the Demetriakon at Amphitrope recorded in column IV of the same stele (*I.G.*, II<sup>2</sup>, 1582, lines 92-99).

Face A, Column II. The preserved text of this column is being published in full since a join of the two pieces, a and b, has been found. The scattered legible letters in the left half of the column are being published here for the first time. The letters at the right end of the column are lines 1-32 of *I.G.*, II<sup>2</sup> 1582 (lines 49 to 80 in this column).

#### ΣΤΟΙΧ. 39

[.....<sup>16</sup>.....] ΟΥ [.....<sup>21</sup>.....]  
 [.....<sup>17</sup>.....] ΑΥΝΕ [.....<sup>18</sup>.....]  
 [.....<sup>15</sup>.....] στήλην [ἔχον .....<sup>14</sup>.....]  
 [.....<sup>15</sup>.....] ΙΛ... Ο [.....<sup>18</sup>.....]  
 5 [.....<sup>18</sup>..... Σο]υν ἐργα[στήριον .....<sup>11</sup>.....]

the commentary here and in other references to this stele, except for lines 1-32 of *I.G.*, II<sup>2</sup>, 1582, to which a joining piece has been added. These are lines 49-80 of Face A, col. II, in the present publication.

[.....<sup>18</sup>.....]Τ[.....<sup>20</sup>.....]  
 [.....<sup>15</sup>.....] ἀπεργ[άψατο μέταλλον .....<sup>6</sup>.....]  
 [.....<sup>17</sup>.....]Ρ[.....<sup>21</sup>.....]

12 lines illegible

21 [.....<sup>17</sup>.....]Δ[.....<sup>21</sup>.....]  
 [.....<sup>16</sup>.....]ΕΛ[.....<sup>21</sup>.....]  
 [.....<sup>17</sup>.....]ΝΜ.Ι[.....<sup>18</sup>.....]  
 [.....<sup>20</sup>.....]ΟΥ[.....<sup>17</sup>.....]  
 25 [.....<sup>19</sup>.....]ΔΥ[.....<sup>18</sup>.....]  
 [.....<sup>18</sup>.....]ΣΗ[.....<sup>19</sup>.....]  
 -----  
 -----  
 -----  
 30 [.....<sup>20</sup>.....]ιον Α[.....<sup>15</sup>.....]  
 [.....<sup>19</sup>.....]Ρ..Φ[.....<sup>16</sup>.....]  
 [.....<sup>19</sup>.....]Λ.Α[.....<sup>17</sup>.....]  
 [.....<sup>19</sup>.....]κρατ[.....<sup>16</sup>.....]  
 [.....<sup>19</sup>.....]ου Ν[.....<sup>17</sup>.....]  
 35 [.....<sup>10</sup>..... ἡλίου] ἀνιόν Λ.Λ[.....<sup>16</sup>.....]  
 [.....<sup>16</sup>.....]Ν...ΣΙΕ[.....<sup>15</sup>.....]  
 [.....<sup>16</sup>.....] ἡ χαράδρα [.....<sup>15</sup>.....]  
 [.....<sup>18</sup>.....] φέρουσα [.....<sup>14</sup>.....]  
 [.....<sup>20</sup>.....]Ι...Ο[.....<sup>14</sup>.....]  
 40 [.....<sup>20</sup>.....]Ο..Ι[.....<sup>15</sup>.....]  
 [.....<sup>21</sup>.....]ΔΗΜ[.....<sup>15</sup>.....]  
 [.....<sup>14</sup>.....]μ]έταλλον παλα[ιὸν ἀνασάξιμον]  
 [.....<sup>17</sup>.....]ι]ακὸν Ἀν[.....<sup>15</sup>.....]  
 [.....<sup>20</sup>.....]ΙΙ.Ι.Σ[.....<sup>14</sup>.....]  
 45 [.....<sup>20</sup>.....]Λ..ΡΙ[.....<sup>14</sup>.....]  
 [.....<sup>20</sup>.....] ἐπὶ Σο[υνι .....<sup>11</sup>.....]  
 [.....<sup>20</sup>.....]Ω..Λ[.....<sup>15</sup>.....]  
 [.....<sup>19</sup>.....]Σ[.....<sup>19</sup>.....]  
 [.....<sup>19</sup>.....]Ι..Λ[.....<sup>14</sup>.....]  
 50 [.....<sup>16</sup>.....] ἀ]νασάξιμ[ον καὶ ἐπικα]τατομ  
 [ἦν ἐν τοῖς ἐδάφεσι τοῖς] Ν.ι[.....<sup>8</sup>.....] Ἀ]λω ὧι γ: νοτ  
 [ό: .....<sup>13</sup>.....] ΛΥΠ.. Ν.. ἐ[ρ]γ[αστήρι]ον πρὸς ἡλί  
 [ου ἀνιό: ἡ ὁδὸς] ἡ [ἐπὶ Θρά]συμον ἀ[πὸ Λαυρ]έον φέρουσ  
 [α πρὸς ἡλίου δνομ:] ἡ [χα]ράδρα ἡ ἀ[πὸ Λαυρ]έον ἐπὶ Θάλ



- 55 [ιον(?) φέρουσα ὠνη: .....<sup>8</sup>...] Λ[...<sup>7</sup>...]ς Ἐλεν: ΗΗΗΗ  
 [.....<sup>18</sup>.....] Σν[π: ἀ]πε[γράψατ]ο μέταλλον  
 [.....<sup>28</sup>..... Δι]οννσιακόν  
 [.....<sup>29</sup>.....] πετίον οἷς γ  
 [.....<sup>20</sup>.....] ἡ[λίον ἀνιό]ν τὸ τέλμα τὸ  
 60 [.....<sup>19</sup>.....] Μ[.....<sup>10</sup>.....] Δαμ: Η<sup>Π</sup> Πλου  
 [τωνιακόν(?) .....<sup>13</sup>..... ὦι γ: βορ:] Δ[ιο]μέδων νοτό:  
 [.....<sup>25</sup>..... ὠν]η: Σῆμος Διοδώρ  
 [ον Παιαν:.....<sup>11</sup>.....]ν [ἐπὶ] Θρασύμωι ἐν τοῖς  
 [ἐδάφεσι τοῖς .....<sup>16</sup>.....] Ἑρμαικὸν ἐπὶ Θ  
 65 [ρασύμωι παλαιὸν ἀνασάξιμον ὦι γ]ε: βορρ: Φιλημον  
 [ιακὸν μέταλλον νοτό: .....<sup>10</sup>.....] ἐργαστήριον ὦ  
 [νη: .....<sup>10</sup>.....] ΙΥ[... μέταλλον] ἐπὶ Θρασύμ  
 [ωι .....<sup>16</sup>.....] Σ[...<sup>7</sup>..... ἀνα]σάξιμον ὦι γ:  
 [.....<sup>17</sup>.....] Δ. Υ[...<sup>8</sup>.....] βορρ: Διοκλείδ  
 70 [ον .... ἐργαστήριον ὦ]ν[η: Λεύκιος Θεο]κλέους Σο[ν]  
 [ν: .....<sup>12</sup>..... ἀπ]εγράψ[ατο μέταλ]λον παλαιὸ  
 [ν ἀνασάξιμον .....<sup>7</sup>.....] σ[τήλην ἔχον ἐπ]ὶ Θρασύμωι  
 [ὦι γε: βορρ: .....<sup>10</sup>.....] Ι... Ι[... νοτό:] Διοφάνους: Γα  
 [ργήττ: ἐργαστήριον] ὠνη: [.....<sup>12</sup>.....] νος Παι[...]  
 75 [.....<sup>17</sup>.....] ΛΙ[.....<sup>14</sup>.....] ἐπὶ Θρα  
 [σύμωι .....<sup>13</sup>.....] Υ[.....<sup>14</sup>.....] ἐπ]ὶ Θαλ  
 [ιν .....<sup>19</sup>.....] Λ[.....<sup>13</sup>.....] ἐν τ[ο]  
 [ῖς ἐδάφεσι τοῖς .....<sup>17</sup>..... στήλην] ἔχο  
 [ν .....<sup>85</sup>.....] ἡττ  
 80 [.....<sup>37</sup>.....] Η[. ]

*lacuna*

Lines 49-55: An anasaximon mine and cutting. See No. 6, lines 5 and 14, and Col. IV, line 137, of this stele for ἐπικατατομή. See below, No. 20, line 6, for the suggested place Thalinos.

Lines 56-60: Dionysiakon.

Lines 60-63: Ploutoniakon(?). The name Ploutoniakon is not attested for a mine. The space seems too short for the restoration of a registrant and the reading Πλούτ[αρχος ---]. Simos of Paiania appears in other texts as lessee and property owner (discussed above under No. 5, line 29).

Lines 63-67: Hermaikon at Thrasymos.

Lines 67-71: A mine at Thrasymos. The lessee Leukios of Sounion is also found in other mining texts (discussed above under No. 5, line 9).

Lines 71-75: A mine at Thrasymos. Diophanes of Gargettos (*P.A.*, 4407) named in the boundaries, perhaps as the owner of a workshop, is the father of Apollodoros (*P.A.*, 1413) who served as trierarch in the third quarter of the century. A second son, Aisimedes, is named in Col. IV of this same text, lines 112 and 117, as registrant and lessee of a mine at Anaphlystos.

Lines 75-80: A mine at Thrasymos.

Face A, Column III = *I.G.*, II<sup>2</sup>, 1582, lines 33-84. These lines contain the record of ten leases of which the last four are renewals recorded from earlier stelai. The price is preserved for seven and in each case it is 150 drachmai.

The following variant readings and restorations are based on a study of the stone and squeeze:

Line 36: [----- ὦνη: -----] φι: Η<sup>Α</sup>

Lines 38-40:

[.....<sup>21</sup>..... ὦι γε: βο]ρρ: τὸ: Ἀρτεμισι  
[ακὸν μέταλλον πρὸς ἡλίου ἀνι: ἡ] χαράδρα πρὸς ἡλίο  
[υ δυομέ: .....<sup>19</sup>.....] :καὶ ἡ χαράδρα: ὦνη

Line 43: [----- ὦι γε: βορρ: Φ]είδιππος Πιθ: καὶ τὸ μ

Line 53: αλλίου φελλεύς νοτό: ἡ ὁδὸς ἡ ἐξ Ὑποτραγῶνος ἐπὶ

Lines 80-83:

Ἀντίξενος Εὐῶ: [ὦι γε:] πρὸς ἡ[λίου ἀνι: ἡ ὁδὸς ἡ εἰς Αὐ]  
[λ]ῶ[να φέ]ρουσ[α καὶ τὸ] Διονυσιακ[ὸν μέταλλον δυομ:]  
Μειδίου Ἀνα[γν: ἐργαστήριον: ὦνη: Λυσανίας Λυσικ]  
λέους: Κεφα: Η<sup>Α</sup>

Pheidippos of Pithos, line 43, is discussed above (No. 5, line 64). The text of the original publication, *Ath. Mitt.*, XXXV, 1910, p. 277, reads — — — ΕΙΔΙΠΠΟΣ, whereas the commentary there and the text in the *Editio Minor* both read Ποσειδίππος. I can see no trace of the pi, omikron, and sigma. Line 53 is published as ἔξω τοῦ Ὑαγῶνος. The upsilon (of ὑπό) is very clear. Hypotragon is not known as a place name. The tentative restorations in lines 80-83 are made by comparison with No. 8, lines 7, 10, and 12. Antixenos of Euonymon, of line 80, was the man who held the former lease. Cf. Schönbauer, *op. cit.*, pp. 21-22.

Face A, Column IV = *I.G.*, II<sup>2</sup>, 1582, lines 85-139. Nine leases are preserved on this column, and with one exception (No. 8, lines 129-135) all seem to be new leases, registered and leased by the same person, and for which a price of 20 drachmai each was paid. The first two are at Amphitrope, the next six (with the possible exception of No. 7, lines 123-129) are at Anaphlystos, and the last at Thorikos.

Lines 90-91 are perhaps to be read as:

[ον τ]ὸ Σιμώνδου, πρὸς ἡλίου [δνομέ: ἡ ὁδὸς ἡ Ἀμφιτρο]  
[πῆ]θεν Βήσαζε φέρουσα κα[ὶ .....<sup>18</sup>.....]

In lines 92 and 98 the name of the registrant and lessee can be restored as [Ἰσαν]δρος Στρατοκλέους. Compare No. 18, line 17, where Stratokles son of Isandros is named as lessee of a mine at Besa.

In line 99 Ἀναφλυστοῖ can be restored before the name of the registrant. For similar repetitions of the place, apparently when there is a change from a group of leases at one place to another, see below, lines 135 and 139, and also No. 5, lines 68 and 69.

In line 108 Stratokles might be restored as owner of the *edaphe*; see below line 115.

The location of the mine in the seventh lease (lines 123-129) is omitted. It is between two leases recorded at Anaphlystos but the road from Laureion to Thrasymos, named as its western boundary, argues against a location at Anaphlystos for this mine.

Lines 136-137 are probably to be read:

ρα: μέταλλον ἀπεγράψατο παλαιὸν ἀνασ[άξιμον κα]  
ὶ ἐπικατατ[ομήν] Ἀρτεμισιακὸν στήλην [ἔχον Θορι]

See above, No. 6, lines 5 and 14, and this same stele, Col. II, line 49. The surface of the stone has deteriorated since the original publication and no letters are now legible in these lines.

Face B, Column I = *I.G.*, II<sup>2</sup>, 1582, lines 140-187 (lines 292-339). Only the left half of the column is legible. Note that the columns on this face are of 35 letters (see below, columns III and IV), not of 39 as on Face A and as published in the *Editio Minor*. This shorter line makes possible some new restorations. The records of about eight leases are preserved, of which at least seven are of mines at Thrasymos. No prices are preserved and in no record is it possible to determine the relationship of registrant to lessee.

- Lines 140-144: [φ]έρουσα [ὠνη:.....<sup>28</sup>..... ἐπ]  
[ὶ] Θρασύμ[ωι.....<sup>19</sup>..... ἀπεγράψ]  
ατο μέταλλ[ον παλαιὸν ἀνασάξιμον ἐπὶ Θρασ]  
[ύ]μωι Ἀρτεμισιακὸν [στήλην ἔχον ὦι γε: βορρ: Ἐ]  
πικράτης [.....<sup>27</sup>.....]  
Lines 159-162: [Ἐ]πικράτης Ἀ[λεξιάδου Ἀναφλ:(?) ἀπεγράψατο ἐπ]  
[ὶ] Θρασύμωι μέταλλον [παλαιὸν ἀνασάξιμον σ]  
[τ]ήλην ἔχον Προσ[...<sup>6</sup>... ἐν τοῖς ἐδάφεσιν το]  
[ὶ]ς Σημωνίδου Σου[νι: ὦι γε: βορρ:....<sup>7</sup>.... ἐργα]



Lines 180-182: [α]στήριον [ὠνη: .....<sup>22</sup>..... Φα]  
 [ι]δρος Καλλίου [Σφήττι: ἀπεγράψατο μέταλλο]  
 [ν] ἐπὶ Θρασύμωι [.....<sup>12</sup>..... ἐν τοῖς ἐδάφε]

The repetition of ἐπὶ Θρασύμωι in lines 141 and 142 suggests that the mine recorded above was not at Thrasymos; see Column IV, Face A, lines 99, 135.

The restoration of Epikrates son of Alexiades of Anaphlystos, line 159, known from a prytany list (*I.G.*, II<sup>2</sup>, 1750 of 334/3) was suggested by Oikonomos, *Ath. Mitt.*, XXXV, 1910, p. 322. The Προσ — — of line 160 is probably the beginning of the name of the mine.

For Phaidros son of Kallias of Sphettos, see above, No. 13, line 94.

On Face B, column II and the left half of column III are illegible. Part of the right half of III is preserved on fragment b (*Hesperia*, V, 1936, pp. 397-400, lines 1-92). Only the first ten lines are concerned with mining leases. A few new restorations are offered and these ten lines are republished in full:

[.....<sup>31</sup>.....]: Νικη  
 [ράτους ἐργαστήριον ὠνη: .....<sup>5</sup>.....]ς: Κτησιβίο: Με  
 [λιτ: . . .: Ἀμφιτροπῇ: Μνησιδάμ]ας: Ἀριστοδάμαν  
 [τος: Μυρ: ἀπεγράψα: μέταλλον] παλαιὸν ἀνασάξ  
 [ιμον στήλην ἔχον .....<sup>9</sup>.....]ον Ἀμφιτροπῇ: ἐ  
 [ν τοῖς ἐδάφεσι τοῖς Ἀντισθέ]νος: Κυθ: ὦι γ: βορ  
 [.....<sup>17</sup>..... νοτό: Μν]ησιδάμαντος ἐ  
 [δάφ: Μυρ: πρὸς ἡλίου ἀνι: Ἀντισ]θένος: ἐδάφ: Κυθ  
 [πρὸς ἡλίου δυο: Μνησιδάμαντ]ος ἐδάφη: Μυρ: ὦν  
 [Μνησιδάμας Ἀριστοδάμαντο]ς: Μυρ: ΔΔ: τάδε ἐπ  
 [ράθη κτλ. —————]

For the repetition of the place name in lines 3 and 6, see above, Column III, line 141. For another example of the abbreviation ἀπεγράψα: (line 4) on this same stele see above, Face A, Column III, line 64. Antisthenes of Kytherros, owner of *edaphē*, lines 6 and 8, is a member of a prominent fourth century family and one of the two of that name who served as trierarchs in the third quarter of the century (*P.A.*, 1194, 1197).<sup>63</sup> The same property seems to be named in two other texts: No. 18, lines 57, 59, and 62, and No. 21, line 20.

The lower part of Column III and all of IV (*Hesperia* V, 1936, pp. 398-403, lines 10-92, and 101-204, contain the records of confiscated property sold by the poletai.

The three new fragments 16 d, e, and f, probably from this same stele, deal

<sup>63</sup> This identification was suggested by Raubitschek, *Hesperia*, XI, 1942, p. 304.

with confiscated property and will therefore be from Columns III and IV of face B. Only the inscribed face is preserved on all three.

Fragment d: Height, 0.083 m.; width, 0.067 m.; thickness, 0.052 m.

Inv. No. I 1816.

Fragment e: Height, 0.142 m.; width, 0.157 m.; thickness, 0.03 m.

Inv. No. I 1782.

Fragment f: Height, 0.052 m.; width, 0.116 m.; thickness, 0.055 m.

Inv. No. I 1664.

Letter height, all fragments, 0.004 m.

The writing is stoichedon (except for line 4 of e) with a square checker unit of which five units measure *ca.* 0.037-0.038 m. Both e and f preserve part of two columns; the intercolumniation on e, of *ca.* 0.009-0.010 m., is slightly narrower than that on the large piece of this stele and on f of 0.11-0.12 m. Fragment e, therefore, is probably to be placed above the large piece b, and f, which in marble and wear closely resembles the small fragment c (*Hesperia*, V, 1936, pp. 397, 404) probably below it. On the broken upper surface of e there are drill holes from a later recutting, similar to those on the sides of a and b (see above) .

Frag. d

ΣΤΟΙΧ. 35

[.....<sup>10</sup>.....]:Κ:[.....<sup>24</sup>.....]  
 [— — — — —<sup>22</sup> — — — — —]ης: [.....<sup>22</sup>.....]  
 [.....<sup>5</sup> — — — — —]τρίτη(?)]ι ἐπὶ [δέκα δικαστήριον.....<sup>6</sup>.....]  
 [κυρωτῆς παρ]ὰ πρυτ[άνεων.....<sup>15</sup>.....]  
 5 [.....<sup>10</sup>.....]: Καλλι[ας — — — — — ἀπέγραψεν — — — — —]  
 [.....<sup>11</sup>.....]εται οἱ[κίαν.....<sup>14</sup>.....]  
 [.....<sup>11</sup>..... τ]ὸ τέμ[ενος.....<sup>15</sup>.....]  
 [.....<sup>12</sup>.....] καὶ τ[.....<sup>19</sup>.....]  
 [.....<sup>13</sup>.....]μαχ[.....<sup>19</sup>.....]  
 10 [.....<sup>14</sup>.....]ΟΣ[.....<sup>19</sup>.....]

*lacuna*

Frag. e

Col. III

Col. IV

[— — — — —<sup>27</sup> — — — — —]Κλε[.....]  
 [— — — — —<sup>26</sup> — — — — —]ο]φλεῖν Κλε  
 [— — — — —<sup>25</sup> — — — — —]τῆ]μημα ΗΗΗ Ε  
 [— — — — —<sup>27</sup> — — — — —]τὸ αὐτὸ χωρί  
 5 [ον — — — — —<sup>26</sup> — — — — —]ἐνοφείλ  
 μον Σμικυλο[ — — — — —<sup>25</sup> — — — — —]  
 οὐντι ἀπέδωκεν[εν — — — — —<sup>21</sup> — — — — —]  
 ξούλας δύο Κ[ — — — — —<sup>25</sup> — — — — —]  
 Π[.....]ΕΜΟ[ — — — — —<sup>25</sup> — — — — —]





pography; cf. *Σμυκιλίων* (*P.A.*, 12799). Line 14: A locative such as [Ἀγν]οῦντι, [Μυρριν]οῦντι, either the place of residence of a metic named in the missing portion of the text or the place in which some property is located. Line 15: An ἐξούλης δίκη is an action brought by one who claims property in consequence of a court judgment against a defendant who has refused to surrender the property. For a similar use of the word in the plural see Andocides, I, 73: ὅποσοι — — ἐξούλας ἢ γραφὰς ἢ ἐπιβολὰς ὠφλον. Apparently two such actions had been brought against the person in question.

No. 16f. Lines 3-4: [Ἀν]ακ(αεύς) or [Λ]ακ(ιάδης) could equally well be restored as demotic. Compare No. 1, line 14, for ὄσῳ πλέον[ος ἀξία — —].

**17** (Plate 93). An inscribed fragment of Hymettian marble found in Section Z on May 16, 1938, in a late Hellenistic context among the working chips for the Propylon of the Tholos Area. The inscribed face only is preserved.

Height, 0.075 m.; width, 0.10 m.; thickness, 0.018 m.

Height of letters, 0.004 m.

Inv. No. I 5511.

The writing is stoichedon set in a square checker pattern of which five units measure *ca.* 0.036 m. The interval between the columns measures 0.008 m.

	Col. I	Col. II	ΣΤΟΙΧ.
	[-----]Κ	[.]ατης [-----]	
	[-----]ια	δουσα α[-----]	
	[-----]ΟΤΟ	ἔδοξεν [----- ἐνεπί]	
5	[-----]ΝΑΠ	σκημμα [----- ἐνεπισκ(?)]	
	[----- ἐνο]φείλ	ἡψατο ε[-----]	
	[εσθαι -----]	ρίῳι τῶι [-----]	
		<i>vacat</i>	

The text of the right-hand column applies to records of sale of confiscated property. See above, Nos. 1, 7, 13, 14, and 16 for the vocabulary. The same is true of the left-hand column if the word [ἐνο]φείλ[εσθαι] is correctly restored in lines 6-7.

**18** (Plate 92). A fragment of Hymettian marble found in a late wall in section Ψ on March 22, 1938. The back surface is smooth, but not parallel to the face; the stone may have been recut after being used as an inscription. It is broken at top, bottom and both sides.

Height, 0.37 m.; width, 0.35 m.; thickness, upper left, 0.09 m.; lower left, 0.092 m.; upper right, 0.08 m.; lower right, 0.076 m.

Height of letters, 0.004 m.

Inv. No. I 5358.

The writing is stoichedon with a square checker pattern of which ten units measure *ca.* 0.071 m., with two units left vacant between the columns.

Col. I

ΣΤΟΙΧ. 47

- [.....<sup>86</sup>.....]Υ..ΟΝ: βορρ[.]
- [.....<sup>17</sup>..... νοτό: ἐργαστήριον] Διοκλέους ἐκ Κη:
- [.....<sup>18</sup>..... ὦνη: Εὐθυκράτης (?) Εὐθυ]κράτους Ἀμφιτρ: ΧΧ
- [.....<sup>29</sup>.....] Βήσησι Α[ι]γιλιακὸν ὦι
- 5 [γεί: .....<sup>28</sup>..... ὦ]νη: Ἀνδροκλῆς Ἱεροκλέ
- [.....<sup>25</sup>..... Βήσ]ησι ἐμ Παγγαί: ὦνη: Γλαυκ
- [.....<sup>22</sup>..... μέταλλον] ἐμ Παγγαίωι ὃ ἡργάζ:
- [----- ὦνη: -----]οκλέους ἐκ Κολ: Η<sup>Π</sup>Δ
- [.....<sup>80</sup>.....]τικὸν στ[ή]λην ἔχον ἐν
- 10 [τοῖς ἐδάφεσιν τοῖς .....<sup>12</sup>..... ὦι] γεί: βορ: ἡ οἰκία ἡ Α[.]
- [----- νοτό: -----] ἐργα]στήριον πρὸς ἡλίο
- [ν ἀνιόν: .....<sup>12</sup>..... δυομέ: τὸ Ἡρ]άκλειον [τ]ὸ Βησαιῶν
- [ὦνη: .....<sup>24</sup>.....] ΧΗΗΗΗ: Ναυσικλῆς [.]ΛΔ[.]
- [----- ἀπεγράψατο μέταλλον -----]ειον Βήσησι στήλην ἔχο
- 15 [ν ὦι γεί: βορ: .....<sup>18</sup>.....] νοτό: ἡ ὁδὸς ἡ Βήσαζε φ
- [έρουσα πρὸς ἡλίου ἀνιόν: .....<sup>7</sup>.....] ντος ἐργα[σ]τήριον δυομ
- [έ: .....<sup>22</sup>..... ὦνη:] Στρατοκλῆς Ἰσάνδρον [Σ]
- [υπαλή: .....<sup>19</sup>..... Δι]φίλου Γαρ[γ]ήτι: ε[ι]σήνε
- [νκε μέταλλον .....<sup>13</sup>..... ἐργά]σιμον Βήσησ {ησ} ι ἐκ τῆς [σ]
- 20 [τῆλης τῆς ἐπ' Ἀρχίου ἄρχο: ὃ ἀπεγρά]ψατο Εὐθύδικος Μνησιθ 346/5
- [έου Σφήττιος ὦ γεί: βορ: Φιλοκρ (?) ]ά[τ]ης Εὐωνν: νοτό: Ἡράκλ
- [ειον τὸ Βησαιῶν ὦνη: .....<sup>9</sup>..... ὦρ]ον Πόριος: Η<sup>Π</sup>: Ἀνδροκλ
- [ῆς .....<sup>7</sup>..... ἀπεγράψατο μέταλλον] παλαιὸν ἀνασάξι: Βήσησι
- [.....<sup>7</sup>..... στήλην ἔχον ὦι γεί: βορ:] Νικανδρίδου Ποταμί: οἰ
- 25 [κία νοτό: ἡ ὁδὸς ἡ εἰς .....<sup>7</sup>..... φέ]ρου[:] πρὸς ἡλίου ἀνιόν: Φι
- [.....<sup>28</sup>..... πρὸ]ς ἡλίου δυομέ: Σπενσίππο
- [ν ----- ὦνη: -----] κλ[ή]ς Σωστράτου Ἀμφιτρο
- [π: .....<sup>21</sup>..... Λαμ]πτρ: ἀπεγράψατο μέταλλο
- [ν ἀνασάξιμ: στήλην ἔχον Βήσησι (?) ]ν Κι[θα]ιρωνιακὸν ἐν τοῖς Κ
- 30 [----- ἐδάφεσιν ὦι γεί: βορ: -----]ράτ[ο]υς Φαληρε: ἐργαστή
- [ριον νοτό: .....<sup>19</sup>.....]ν Τησαγόρας ηρ[:.]οκαιν
- [.....<sup>29</sup>.....]ίτου ὦνη: Καλλικρατίδ
- [ης .....<sup>27</sup>.....]λῆς Ἀ[λ]αιε: ἀπεγράψατ

- [ο μέταλλον παλαιὸν ἀνασάξι : Βήσησ]ιν στήλην ἔχον Ἀφροδι  
 35 [σιακὸν ὦι γεί: βορ: . . . <sup>6</sup> . . . ἐργαστή]ριον νοτόθ: Βησαιῶν Ἀ  
 [ρτεμίσιον . . . <sup>21</sup> . . . ]λι: πρὸς ἡλίου δυομέ  
 [ . . . <sup>24</sup> . . . ὦνη: Λ( ? ) ]υσικλῆς Ζηλάρχου Σνπ  
 [αλ: . . . <sup>26</sup> . . . Λα]μπτρε: ἀπεγράψατο  
 [μέταλλον . . . <sup>26</sup> . . . ]ΣΕΡΕ: [ . . . <sup>8</sup> . . . ]

## lacuna

## Col. II

- 40 ΧΟ[ . . . <sup>45</sup> . . . ]  
 ΔΙΟ[ . . . <sup>41</sup> . . . πρὸ  
 ς ἡλ[ίου ἀνιόν: . . . <sup>26</sup> . . . πρὸς ἡλίου]  
 δυο[μέ: . . . <sup>41</sup> . . . ]  
 Ἰππίσ[κου . . . <sup>89</sup> . . . ]  
 45 Ἀμφι[τροπ: . . . <sup>37</sup> . . . Ἀ]  
 μφιτ[ροπ: . . . <sup>39</sup> . . . ]  
 ΦΙΛΑ[ . . . <sup>43</sup> . . . ]  
 νοτό[ : . . . <sup>42</sup> . . . ]  
 Ἀμφιτ[ροπ: . . . <sup>38</sup> . . . ]  
 50 [ . ]ράτο[υ . . . <sup>41</sup> . . . ]  
 [ἀ]πεγρά[ψατο μέταλλον παλαιὸν ἀνασάξι: . . . <sup>10</sup> . . . ἐν το]  
 ἰς ἐδάφ[εσιν τοῖς ————— ὦι γ: βορ: —————]  
 Ἀμφιτρο[π: νοτό: τὸ μέταλλον ὃ . . . <sup>20</sup> . . . ἡρ]  
 γάζε: πρὸς ἡλίου . . . <sup>20</sup> . . . ὦνη:]  
 55 Κομωνίδης [ . . . <sup>28</sup> . . . ἀπεγράψατο]  
 μέταλλον πα[λαιὸν ἀνασάξι: στήλην ἔχον . . . <sup>5</sup> . . . Ἀμφιτροπ:]  
 ὦι γ: βορ: Κτ[ . . . <sup>21</sup> . . . νοτό: ἐδάφη Ἀντισθ]  
 ένους πρὸς ἡ[λίου ἀνιόν: . . . <sup>25</sup> . . . δυ]  
 ομέ: Ἀντισθέ[νης ὦνη: . . . <sup>29</sup> . . . ]  
 60 Φανόθεος Λυσ[ί]π[που Παιανιεύς ἀπεγράψατο μέταλλον ἐργά]  
 σιμ: ἐκ τῆς στήλης[ς τῆς ἐπὶ Θεοφίλου( ??) ἄρχο: . . . <sup>12</sup> . . . Ἀ] 348/7  
 μφιτροπ: ὦι γ: βο[ρ: . . . <sup>18</sup> . . . νοτό: Ἀντισθέν(?)]  
 ος ἐδάφη πρὸς ἡλ[ίου ἀνιόν: . . . <sup>20</sup> . . . δυομέ:]  
 ἡ ὁδὸς ἡ Βήσαζε φέρ[ου: ὦνη: Φανόθεος Λυσίππου Παιαν: Η[Ρ] (?)]  
 65 Εὐθυκράτης Ἀντιδ[ότου Κρωπί: ἀπεγράψατο μέταλλον ἐργά]  
 σιμον Θεοδόσιον Ἀ[μφιτροπ: ἐκ τῆς στήλης τῆς ἐπὶ Θεοφίλου(?)] 348/7  
 ἄρχο: ἐν τοῖς ἐδάφ[εσιν τοῖς . . . <sup>16</sup> . . . ὦι γ: βορρ]  
 ἂ [ : ] ἡ ὁδὸς ἡ Βήσαζε φέ[ρου: . . . <sup>21</sup> . . . δυομέ:( ? )]  
 Φιλόφρων Πειρ: ὦνη: [Εὐθυκράτης Ἀντιδότου Κρωπίδης . . . <sup>5</sup> . . . ]  
 70 Θορ[ι]κοῖ Φεῖδιππο[ς Φαύλλου Πιθ: ἀπεγράψ: μέταλλον ἀνασ]



άξι[:] 'Α[ρ]τεμισ[ι]ακ: έ[ν τοίς έδάφεσιν τοίς .....<sup>10</sup>... ώι γ:]  
 βορ: Φ[ε]ι[δ]ίππου έ[ρ]γ[αστήριον .....<sup>18</sup>... ήλίου]  
 άνι[όν:] ...<sup>4</sup>... || [.] Ρ[.....<sup>34</sup>.....]  
 [.] | [.....<sup>45</sup>.....]

*lacuna*

There are a number of irregularities in the stoichedon arrangement. In line 6 έμ Παγγαί is written in seven instead of eight letter spaces and the Γλ of Γλανκ is written in one space. In lines 11-12, between the fifth and sixth letters from the right end of the column there is a gap of two letter spaces with a broken surface antedating the inscription; these lines thus are two letters short. In lines 23 and 32 the two last letters are written in one space. In line 69 the φρ of Φιλόφρων and ρ: of Πειρ: occupy only one letter space.

The name of an archon is to be restored in three lines (20, 61, and 66). In line 20, Archias, archon for 364/5, can be restored with some probability, assuming that the word *ἄρχοντας* is included as it is in line 67, and in the same abbreviated form. This lease, lines 18-22, is the only renewal in which registrant and lessee are not the same and the specific reference to the former operator, Euthydikos, suggests that it may be a renewal out of order: that the son of Diphilos took over the concession before the lease held by Euthydikos had expired. The two renewals recorded in column II are probably of long term leases, for no former operator is named and the verb *ἀπεγράψατο* fits better in line 60 than *εἰσήνεγκε*. Normal restorations in line 66 suggest seven letters and Theellos of 351/0 could be restored. This, however, would make this text earlier than No. 16, in which long term leases are renewed from the stele of 349/8. The present text is closely associated with Nos. 19 and 20 in the 47-letter line; so I prefer to assume an extra letter at the end of line 66 (as in lines 23 and 32) and suggest that Theophilos, 348/7, is perhaps to be restored. This inscription then may be the record of 341/0 (see above pp. 199-202 on the length of leases).

Column I, lines 1-39, contains the records of perhaps eleven leases of which eight are apparently at Besa, two at Pangaion, and Column II, lines 40-76, of about seven leases of which the second through the sixth seem to be at Amphitrope, the seventh at Thorikos.

Lines 1-8 contain very brief records of four leases. Line 2: A Diokles of Kedoi of the second century is known (*N.P.A.*, p. 57).

Line 3: See commentary on No. 19, lines 9-13, for Euthykrates of Amphitrope.

Line 4: Aigiliakon, a new name for a mine; see Prospaltikon, *I.G.*, II<sup>2</sup>, 2635, Hagnousiakon, No. 1, line 50, and Kerameikon, No. 1, lines 77-78, for similar names derived from a deme or its mythical hero.

Line 5: For *Ἀνδροκλῆς Ἱεροκλέ[ους]* see below, line 8; possibly the same person leased the two mines. Neither name however is attested for Kolonos.

Line 6: Pangaion is hitherto unattested as a place name in Attica. Like the name Maroneia it has been borrowed from the Macedonian mining district where Mount Pangaion was famous for its gold and silver. It probably also applies to a hill or mountain here which seems to lie in the deme of Besa. See also No. 2, lines 17-18.

Lines 9-13: A mine, probably at Besa. I have found no other reference except below in line 21 to a sanctuary of Herakles at or near Besa.

Lines 13-18: A mine at Besa. The available space in line 14 suggests that the patronymic of Nausikles was omitted. The demotic could be restored as [‘Α]λα[ιεύς]. [Π]αλ[ληνεύς], or [Φ]αλ[ηρεύς]. He is perhaps to be identified with the Nausikles, of whom neither patronymic nor demotic is known, who is said to have worked unregistered mines (Hypereides, IV, 34). The lessee Stratokles son of Isandros of Sypalettos is either father or son of [Ἰσαν]δρος Στρατοκλέους Συπα(λήττιος), registrant and lessee of Demetriakon at Amphitrope in No. 16 (=I.G., II<sup>2</sup>, 1582, lines 92-99). Stratokles of Sypalettos (P.A., 12944) is known from a tax record of the second half of the fourth century where a son is named as purchaser of property. Isandros perhaps can be restored in that text (I.G., II<sup>2</sup>, 1598, line 22).

Lines 18-22: An *ergasimon* mine at Besa. See above for a discussion of the archon and the type of lease. The registrant, son of Diphilos of Gargettos, is perhaps a son of the Diphilos of Gargettos (P. A., 4477) who served as choregos in the early fourth century. Lykourgos convicted a Diphilos, whose demotic is not preserved, of having enriched himself illegally in the mines; cf. [ps.-Plut.], X *Orat.*, 843d. The man charged by Lykourgos may be a member of this family of Gargettos, or may equally well be identified with Diphilos son of Diopeithes of Sounion (P.A., 4487), trierarch in the 'twenties, or with Diphilos of Pithos, both of whose families are known to have had mining interests (see No. 13, lines 64 and 68). The mine called the Diphileion in No. 32 (=I.G., II<sup>2</sup>, 1587) line 11, is probably to be associated with one of these three. The former registrant Euthydikos son of Mnesitheos of Sphettos is named as the lessee of a concession Artemisiakon, named in the boundaries of another mine (No. 10, lines 5-6). By adding a nu at the end of εἰσήμενε in line 19 one could restore Artemisiakon in the present text and identify the two mines. The evidence from the boundaries is, however, inconclusive. A Mnesitheos of Sphettos is listed in a catalogue of ca. 330 (I.G., II<sup>2</sup>, 2409); it is uncertain whether he is the father or perhaps the son of Euthydikos. Philokrates of Euonymon owned a workshop in Besa (No. 5, line 78). The lessee from Poros is to be identified with the registrant of Athenaikon at Besa (No. 5, line 73). For the archon in line 20, see above.

Lines 22-27: A mine at Besa. The patronymic of the registrant is omitted. Although the restorations would be technically possible I do not believe that the registrant Ανδροκλ — is to be identified with the lessee — κλής Σωστράτου Ἀμφιτροπ: since the other records in this column seem to be of the higher priced leases in which the registrant and lessee are not identical except in the case of an *ergasimon* mine. Neither Androkles nor Sostratos is known for Amphitrope. See above, line 5.

Lines 28-33: Kithaironiakon at Besa(?). The name of the mine is new.

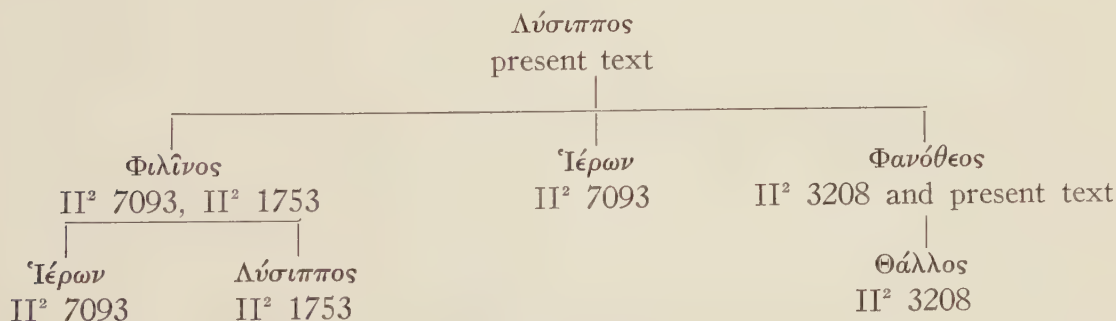
Lines 33-38: Aphrodisiakon at Besa. An Androkles of Halai (*P.A.*, 857) of the late fourth century is known and could be restored as registrant; but the registrant could equally well be identified with either of the men named Androkles of this same text (lines 5, 22) or with Nausikles of line 13, thus reading the demotic there as [‘Α]λα[ιεύς]. For the Artemision of Besa restored as southern boundary, see No. 5, line 10. The lessee Lysikles son of Zelarchos of Sypalettos is probably an ancestor of Lysikles of Sypalettos (*P.A.*, 9440) of the third century.

Line 44: Ἱππισκ[ο-] is probably the patronymic of the lessee or the name of the registrant. An Hippiskos is named as property owner in Thorikos in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 74). The name is uncommon and he may be the same man.

Line 55: Κομωνίδης is a new name for Attic prosopography; but compare Κόμων and Κωμωνίδης (*P.A.*, 8695-6, and *P.A.*, 8959).

Lines 57, 59, 63: Antisthenes, restored as owner of *edaphe* named in the boundaries of this and the following mine, is to be identified with Antisthenes of Kytherros, owner of *edaphe* in Amphitrope in No. 16 (= *Hesperia*, V, 1936, p. 398, lines 6, 8); see above. The property was probably the same and the three mines were probably close together.

Lines 60-64: An ergasimon mine at Amphitrope. See above for the archon. Phanotheos son of Lysippos of Paiania, registrant and restored as lessee (normally the same for *ergasima* mines), is probably a member of the family of Hieron and Philinos of Paiania, known from a grave stele of the mid fourth century (*I.G.*, II<sup>2</sup>, 7093). A Lysippos son of Philinos served as prytanis near the end of the century, and might be the grandson of the father of the lessee. A Phanotheos father of Thallos of Paiania is known from a fourth century dedication (*I.G.*, II<sup>2</sup>, 3208). The stemma, *sub. P.A.*, 7543, would thus be:



Lines 65-70: Theodosion at Amphitrope. See above for the archon. Euthykrates son of Antidotus of Kropidai, registrant and probably lessee of this mine, also appears as lessee of Heroikon in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 59-60). He is perhaps the Euthykrates (*P.A.*, 5589, without patronymic or demotic) whose property, valued



at more than 60 talents, Teisis of Agryle had registered for confiscation (Hypereides, IV, 34). The property of Euthykrates is not specifically stated to be in mining, but it seems probable since Teisis had also promised to register the property of Nausikles and Philippos who had become rich from unregistered mines (*ibid.*). One of the boundaries of Heroikon leased by Euthykrates of Kropidai was the Teisiakon mine, which may have been named by Teisis of Agryle. Nothing would seem more natural than charges brought against those operating neighboring mines.

Lines 70-75: Artemisiakon at Thorikos. See No. 13, commentary on line 64, for Pheidippos of Pithos, and see above, pp. 195-196, for possible identifications of the various Artemisiakons at Thorikos.

**19** (Plate 92). Fragment of Hymettian marble, with inscribed face and smooth-worn back preserved, found during the demolition of modern houses in section N on November 19, 1934. The surface has suffered much from the re-use of the stone as a doorsill with the inscribed face up.

Height, 0.37 m.; width, 0.34 m.; thickness, 0.108-0.11 m.

Height of letters, 0.004 m.

Inv. No. I 2205.

The writing is stoichedon with a square checker unit in which ten units measure *ca.* 0.077 m. Two such units are left vacant between the columns.

Col. I	ΣΤΟΙΧ. 47
[..... <sup>21</sup> .....] O[..... <sup>10</sup> .....] I[.] E[..... <sup>12</sup> .....]	
[..... <sup>28</sup> .....] Σ[....] O[....] O[....] O[.... <sup>6</sup> ...]	
[..... <sup>13</sup> ..... ὦ] νη[ : ... ] ιλο[ς X] αριμήδου M[αρ] αθ[ : ... : ... ]	
[..... <sup>13</sup> .....] ου Ἀλα[ιεύ]ς εἰ[σ] ἤνεγκε μέταλλον [έ]ργάσι[ιμον]	
5 [έκ τῆς στήλης τῆς ἐπὶ Σωσιγένους ἄρ[χ]οντος Ἀρ[τεμ]ισι[ακὸν]	342/1
[στήλην ἔχον Θορ]ικοῖ ἐν τοῖς ἐδάφεσιν τοῖς Λυσιθείδου [Κι]	
[κυν: ὦι γεί: βορ]ρᾶ: Λυ[σι]θείδης Κικ[υ]ν: νοτό: ἡ ὁδὸς ἡ ἐπὶ [..]	
[... <sup>6</sup> ... φέρουσα κ]αὶ Φε[ιδ]ίππου [Π]ιθε: ἐργαστ[ήρ]ιον ὠνη:[..]	
[..... <sup>16</sup> .....] Ἀλα[ι] : ΗΡ: Α[.....]ς Λυσι[σ]τράτου Φιλα[ίδ]	
10 [ης ἐκ τῆς στήλης τῆς ἐπ' Ἀρχίου ἄρχοντ]ος μέταλλον ἀπεγρ[άψ]	346/5
[ατο ἐργάσιμον ..... <sup>19</sup> .....]ν ἐν τοῖς ἐδάφεσι[ν τ]	
[οῖς παίδων Εὐθυκράτους (?) ὦι γεί: παντα]χόθεν παῖδες Εὐθυ[κ]	
[ράτους ὠνη: Α[.....]ς Λυσιστράτου Φιλα:] : ΗΡ: Διόδωρος Φερε	
[κλέους Θημακ: ἐκ τῆς στήλης τῆς ἐπὶ Σω]σιγένους ἄρχοντος	342/1
15 [μέταλλον ἐργάσιμον εἰσήνε]κε Θ[ο]ρ[ικ]οῖ στήλην ἔχον Λαβια	
[κὸν ἐν τοῖς ἐδάφεσ]ι τοῖ[ς] Φερ[ε]κλέους Θημακ[:] ὦι γεί: βορρ[ᾶ]	

	[ή ὁδὸς ἡ ἐκ Θορικοῦ] εἰς [Πάνορμ(?) ]ον φέρουσα νοτόθ: Αἰσχίν[ης]	
	[Θορίκι: ὦνη: Διόδ]ωρο[ς Φερεκλ]έους Θημακ: ΗΡ: Μαρωνεί[α] <ι>	Col. II
	[μέταλλον . . . <sup>8</sup> . . . ]νι[κὸν ἀνασ]άξιμον τὸ ἄντρον στήλη<ν> οὐ	O --
20	[κ ἔχον ἐν τοῖς ἐδάφεσιν τοῖς Σο]νιάδου ὦι γεί: βο[ρ]ρᾶ: Παν	. --
	[----- νοτόθ: -----]λέους Ὁ{ι}ῆθ: χωρί[ον κ]α[ι] Φιλ	. --
	[..... <sup>22</sup> ..... ὦν]η: Δρωπίδης Ἐ[ρμίππ(?) ]ου Ἀ[φ]ιδν	. --
	[...: μέταλλον ἀνασάξιμον στ]ήλην ἔχον Ἀσο[.....]ο[ν ἐ]ν Μαρ	Λ --
	[ωνεῖαι ἐν τοῖς ἐδάφεσιν] τοῖς Νικηράτου Κυδ[αν]: [ὦι γ]εί: πρ	ΛΗ --
25	[ὸς ἡλίου ἀνιόν: ... <sup>7</sup> . . . ]ς κάμινος π[ρ]ὸς [δ]ήλιον [δυομ]: [ή] ὁδὸς	ὦι γ --
	[ή ἐπὶ Σούνιον(?) φέρουσα βο]ρρ: Νικήρατος Κυδ[α]ντ[ί]: [νοτ]ό: Δι	ΡΟ --
	[----- ὦνη: -----] Ἀντιγένους Κεφ[αλήθ]: [....]: Ἀπο	O --
	[..... <sup>19</sup> ..... ἀπε]γράψατο μέταλ[λο]ν Ἐρ[μ]α[ικὸν ἀ]ν	I --
	[ασάξιμον ..... <sup>11</sup> ..... στήλην] ἔχον ὦι [γεί]: βο[ρρ]: ἡ [χ]αράδ	NE --
30	[ρα ἡ ..... <sup>20</sup> .....] πρὸς ἡλίου ἀ[ν]ι[όν]: ΚΙ[..... <sup>7</sup> .....]	Σ --
	[..... <sup>6</sup> ..... ὦνη: Εὐθυκράτης(?) Εὐθυ]κράτου Ἀμφιτροπ[..... <sup>9</sup> .....]	
	[..... <sup>24</sup> ..... μ]έταλλον ἀπεγρ[άψατ]ο [..... <sup>5</sup> .....]	
	[..... <sup>28</sup> .....]ο[.] στήλην ἔχον ἐν τοῖς ἐδά	
	[φεσιν τοῖς ..... <sup>6</sup> ..... ὦι γεί: βορρ: τὸ Ἀφ]ροδισια[κ]ὸν [μέ]τα[λλο]	
35	[ν νοτόθ: ..... <sup>22</sup> ..... π]ρὸς ἡλίο[ν] ἀν[ιόν]:...	
	[----- πρὸς ἡλίου δυομ: -----]ιον Διονυσόδωρου [...]	
	[----- ὦνη: -----]άδους ἐξ Οἴου: ΗΡ: [...]	
	[..... <sup>24</sup> ..... μέταλλον ἀ]πεγράψατο πα[λαι]	
	[ὸν ἀνασάξιμον ..... <sup>21</sup> .....]Ο. ΕΑ. Υ. ΝΙ[.....]	
40	[..... <sup>34</sup> .....] [..... <sup>8</sup> .....]	

*lacuna*

This text is perhaps part of the record of 339/8.<sup>65</sup> In lines 3-9 and 13-18 leases are recorded from the stele of Sosigenes, archon in 342/1. Since the verb *εἰσῆγενκε* is used and no previous operator named, it is assumed that they are renewals of the short term, three year, leases. The third renewal in this text, lines 9-13, in which the verb *ἀπεγράψατο* is used, was of a long term lease, perhaps for seven years. Therefore Archias, archon for 346/5, has been restored in line 10. See above pp. 199-202 on the length of leases.

<sup>65</sup> This fragment has the same length of line and the same stoichedon unit as the two pieces assigned to the following text, No. 20. The signs of re-use are different; this piece is broken on a roughly horizontal line across the top and the original back is preserved, whereas the others show signs of having been cut vertically into a front and back part. Furthermore, the archons named in the two texts, if they are assumed to be from the same stele, cannot be fitted into any logical pattern of renewals of leases. Therefore I have given them separate numbers and tentatively assigned them to consecutive years.

The initial letters of a second column are preserved at the right of lines 19-30. The first column contains the records of eight leases of which the first and last are very fragmentary.

Line 3: A Charimedes of the tribe Aiantis is known for the second century (*P.A.*, 15426). Since Marathon belonged to Aiantis, he may be a descendant of the lessee.

Lines 3-9: Artemisiakon at Thorikos. See No. 6, lines 8-12, for another record of an Artemisiakon at Thorikos, also in the property of Lysitheides and bounded on the north by his property. See above pp. 195-196 for the possible identifications of mines in separate leases. The road in lines 7-8 is probably the road either to Laureion or to Thrasymos. Pheidippos of Pithos, named as lessee and property owner in other texts, is discussed above on No. 13, line 64.

Lines 9-13: The name and location of the mine were probably given in line 11. See above for the restoration of Archias as archon. Note that in the preceding lease the demotic of the registrant was apparently written out in full but abbreviated when repeated after the name of the lessee. The name of the registrant and lessee was either Archias or Lysias. The Euthykrates in whose children's property the mine was located was perhaps from Amphitrope; see No. 18, line 3, and commentary thereto. A mortgage stone from Eleusis (*I.G.*, II<sup>2</sup>, 2647) mentions property belonging to the children of Euthykrates of Amphitrope. Both references suggest that he died while some or all of his children were still minors. The Euthykrates of this text and of the mortgage stone might well be the father of the Euthykrates son of Euthykrates, trierarch in 334/3, who is restored as lessee in No. 18, line 3, and in line 31 of this text. The Euthykrates of Amphitrope, owner of a workshop at Thorikos in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 71) could be either father or son. For a parallel use of *πανταχόθεν* (line 12) see No. 1, line 41.

Lines 13-18: Labiakon at Thorikos. This is a new mine name probably derived from the proper name *Λάβης* (*P.A.*, 8960). The registrant and lessee, Diodoros son of Pherekles of Themakos, was probably a descendant of that Pherekles of Themakos (*P.A.*, 14191) in whose house the mysteries were celebrated in 415. Since the father in our text seems to be the owner of the *edaphe* in which the mine was located, he probably is grandson and Diodoros great-grandson of *P.A.*, 14191. Aeschines of Thorikos appears elsewhere as property owner in Thorikos; cf. No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 72-73).

Lines 18-22: A mine at Maroneia. The last letter of line 18 is uncertain; it most resembles a nu or kappa. I have assumed that a nu was written by mistake for an iota. Most of the letters in line 19 are far from clear. The cave, *τὸ ἄντρον*, seems to be an additional epithet with the actual name of the mine to be restored in the gap further left. The stone cutter wrote *στήλης* instead of *στήλην*. Dropides of Aphidna, the lessee, is named on the marker of an *anasaximon* mine, *I.G.*, II<sup>2</sup>, 2636. The name



of the mine is not recorded on the marker and the place of finding is not known for the marker. The suggested patronymic Hermippos is attested for Aphidna in the second century, *P.A.*, 5113-14. See commentary on No. 5, lines 6-11, where Dropides might be restored as lessee of a mine at Sounion.

Lines 23-27: A mine Aso — at Maroneia. For Nikeratos of Kydantidai, see No. 15, line 46.

Lines 27-32: Hermaikon(?). For Euthykrates son of Euthykrates of Amphitrope, restored as lessee, see above (line 12) and No. 18, line 3.

**20** (Plate 93). Two fragments of Hymettian marble from the same stele. Fragment a is made up of three joining pieces, of which one was found in section B in late fill south of the Tholos on Jan. 31, 1935, and two in section Z in 1933, one among the marbles, the other from the foundations of a modern house in the northeast corner of the section. Fragment b was found beside the foundations of the same house on April 19, 1933. Both are broken on all sides. Both have similar marks of recutting on the uneven back surfaces: small drill holes and irregular grooves. Judging from the line of breaks and the relative thickness fragment b falls somewhat below a, but belongs to the same column.

Fragment a: height, 0.24 m.; width, 0.34 m.; thickness, 0.088 m.

Inv. No. I 631 + I 939.

Fragment b: height, 0.23 m.; width, 0.13 m.; thickness, 0.09 m.

Inv. No. I 686.

Height of letters, 0.004 m.

The writing is stoichedon with a square checker pattern of which ten units measure *ca.* 0.077 m. Two such units are left vacant between the columns.

The stele had at least two columns, for the last letters of five lines of one column are preserved at the left.

Col. II

ΣΤΟΙΧ. 47

Frag. a

[.....<sup>23</sup>.....] ΟΕ [.....<sup>22</sup>.....]  
 [.....<sup>16</sup>.....] Ἀρτεμισιακ[ὸν παλαιὸν ἀνασάξιμον ἐν]  
 [τοῖς ἐδά]φ[εσιν τοῖς] Καλλαίσχ(ρ)ον Σ[ιφν: ὦι γεί: βορρά:.....]  
 [. . .<sup>5</sup> . . .]: νοτ[όθ: Στη]σιληίδου ἐργασ[τήριον ἡλίου ἀνιόν: Στ]  
 5 [ησιλ]ηίδου χ[ωρίον] ἡλίου δυομέ: Ἐπι[κράτους χωρίον ὠνη: Λ]  
 [εὐκι]ος Θεοκ[λέου]ς Σουν[ι]: ΗΗ: Θαλινο[ῖ(?) Θουτιμίδης Σουνι:]  
 [μέ]ταλλον ἀπε[γρ]άψατο [ἐρ]γάσιμον ἐκ τῆς σ[τήλης τῆς ἐπ' Εὐβο]

- ὕλον Ἀρτεμισιακὸν ἐν [Νάπ]ηι ἐν τοῖς ἐδάφε[σιν τοῖς . . .<sup>6</sup> . . .]  
 ὦι γεί: βορρά: μέταλλ[ον Ἀ]ρτεμισιακὸν ὃ ἐ[ργάζεται . . .<sup>5</sup> . . .]  
 Col. I ιων νοτόθ: ἡ χαράδρα [ἡ ἀπὸ] Νάπης ρέουσα καὶ τ[ὸ ἐργαστήριον]  
 — — O ν τὸ Ἐπικράτους πρὸς [ἡλίου] ἀνιόν: τὰ χωρία τὰ [Τελέσωνος (?) κ]  
 — — Φ αὶ ἡ οἰκία δνόμενον ἐ[ργαστή]ριον ὦνη: Θουτιμ[ίδης Φανίου]  
 — — Λ Σουνι: ΗΡ: Θορικοῖ [ἐν . . .<sup>5</sup> . . .]μηι ἀνασάξιμον Φ[. . . . .<sup>9</sup> . . . σ]  
 — — M τήλην ἔχον ὦι γεί: β[ορρά: ἡ ὁ]δὸς ἡ εἰς Θορικό[ν νοτόθ: ἡ ὁδὸ]  
 — — Π ς ἡ εἰς τὸ Διονύσιον φ[έρουσα π]ρὸς ἡλίου ἀνι[όν: . . . . .<sup>9</sup> . . .]  
 πρὸς ἡλίου δυο: τὸ .ω[. . .<sup>5</sup> . . . ὦνη: Κη]φισοφῶν [ . . . . .<sup>10</sup> . . . Φρ]  
 εάρρι: ΗΡΔ: Εὐδράων [Εὐδράωνος Θορίκι: ἀπεγράψατο μέτα]  
 λλον Θορικοῖ Ἑραϊκὸ[ν ὦι γεί:βορρά: ἡ ὁδὸς ἡ ἐπὶ . . . . .<sup>8</sup> . . .]  
 φέρου: νοτό: Εὐδράο[νος χωρίον: ὦνη: Ἐπικράτης Ἰσοκράτ]  
 20 ονς Εὐωνυ: ΗΗ: Χαρ[. . . . .<sup>11</sup> . . . μέταλλον ἀπεγράψατο Ἀρτ]  
 [ε]μισιακὸν ἀνασάξι[μ]ο[ν ἐν τοῖς ἐδάφεσιν τοῖς . . . . .<sup>10</sup> . . .]  
 [ . . ]υς Γαργητί: ὦι γεί: βορρά — — — — — νοτό: — — — — —  
 [ . . ]ς Ἐλευσί: πρὸς [ἡλ]ί[ου ἀνιόν: . . . . .<sup>21</sup> . . . . .]  
 [ . . δ]υόμενον μέ[τα]λ[λ]: ὃ [ἐργάζεται . . . . .<sup>19</sup> . . . . . ὦ]  
 25 [νη:] Φεΐδιππος Φαύλλο[ν Πιθε: . . . : μέταλλον ἀνασάξιμον]  
 [παλα]ιὸν Ἀρτεμισιακ[ὸν στήλην ἔχον ἐν τοῖς ἐδάφεσιν τοῖς]  
 [Φανος (?) ]τράτον Γαρ[γητί: ὦι γεί:βορρά: Λυσιθείδης Κικ:(?)ν]  
 [οτό: Φ]εΐδιππος Π[ιθε: καὶ ἡ ὁδὸς ἡ ἐκ Θορικοῦ ἐπὶ . . . . .<sup>8</sup> . . .]  
 [φέρειν:] πρὸς ἡλίο[ν . . . . .<sup>32</sup> . . . . .]  
 30 [ . . .<sup>7</sup> . . . ]ς Μυρρι: [ . . . . .<sup>33</sup> . . . . .]  
 [ . . .<sup>5</sup> . . . μέ]ταλ[λον . . . . .<sup>34</sup> . . . . .]

*lacuna*

# Frag. b

- [ . . . . .<sup>18</sup> . . . . . ]ΙΩ[ . . . . .<sup>27</sup> . . . . .]  
 [ . . .<sup>6</sup> . . . ἐν τοῖς ἐδάφε]σιν τοῖ[ς . . . . .<sup>28</sup> . . . . .]  
 35 [ . . . . .<sup>17</sup> . . . . . ] χαράδρ[α . . . . .<sup>23</sup> . . . . .]  
 [ . . . . .<sup>15</sup> . . . . . ]έρου δ[ν]ο[μένον — — — — — ὦνη: — — —]  
 [ . . . . .<sup>14</sup> . . . . . ] : ΠΗΗΗ: Η[ . . . . .<sup>25</sup> . . . . .]  
 [ . . . . .<sup>8</sup> . . . ἀπεγρά]ψατο [μ]έτ[αλλον . . . . .<sup>21</sup> . . . . .]  
 [ . . . . .<sup>13</sup> . . . . . ] Ἑρμα<α>ι[κ]ὸ[ν ἐν . . . . .<sup>25</sup> . . . . .]  
 40 [ . . . ἐμ Φιλομηλ]ιδῶν στήλ[η]ν [ἔχον ὦι γεί: βορρά . . . . .<sup>8</sup> . . .]  
 [ . νοτόθ: ἡ ὁδὸς] ἡ ἐπὶ Λαύ[ρ]ειο[ν φέρουσα ἡλίου ἀνιόν: . . .<sup>5</sup> . . .]  
 [ . . .<sup>6</sup> . . . ὦνη:] Ἀγνων Θρασίππου [ . . . . .<sup>23</sup> . . . . .]  
 [ . . . . .<sup>9</sup> . . . ]ι: μέταλλον ἀπεγρ[άψατο . . . . .<sup>15</sup> . . . . .]  
 [ . . .<sup>6</sup> . . . ἐμ] Φιλομηλιδῶν στήλη[ν ἔχον ὦι γεί: βορρά: . . .<sup>6</sup> . . .]

- 45 [...<sup>7</sup>... α]ρδαμηττὸς νοτόθ: ἐ[ργαστήριον (?) ...<sup>7</sup>... ἀνιόν : ἐ]  
 [ργαστήρι (?) ]ον Ξενοστράτου ἡλ[ίου δυο — — — — — ὦνη: — — — — —]  
 [...<sup>8</sup>...] Χάρητος Θορίκι: Η[...<sup>24</sup>...]  
 [...<sup>6</sup>... μέτ]αλλον ἀπεγράψατ[ο ...<sup>23</sup>...]  
 [...<sup>10</sup>...]ιακὸν ἐν τοῖς ἐ[δάφεσιν τοῖς Νικίου ᾧ γεί: βο]  
 50 [ρῥᾶ: <sup>5</sup>... κα]ὶ Σμικύθου Θο[ρική: χωρίον (?) νοτόθ: ἡ ἀτραπὸς ἡ]  
 [...<sup>11</sup>...]ον ἄγουσα ἀν[ιόν: — — — — — δυο: — — — — —]  
 [...<sup>11</sup>...]ν καὶ ἡ χαράδρ[α ὦνη: ...<sup>20</sup>...]  
 [...<sup>11</sup>...]ος Κυδιάδου [— — — — — μέταλλον ἀπεγράψατο — — — — —]  
 [...<sup>6</sup>... παλαι (?) ]ὸν ἀνασάξιμ[ον ...<sup>12</sup>... στήλην ἔχον ᾧ]  
 55 [γεί: βορρᾶ: ἡ] ὁδὸς ἡ εἰς Θ[ορικὸν φέρουσα νοτόθ: ...<sup>8</sup>...]  
 [... ἀνιόν : μέτα]λλον ὃ Κυ[διάδης ἐργάζεται ...<sup>13</sup>...]  
 [...<sup>18</sup>...]θένης [— — — — — ὦνη: — — — — —]  
 [...<sup>18</sup>...]ΗΡ: Εὐ[...<sup>29</sup>...]  
 [...<sup>15</sup>...]ΟΙ[...<sup>30</sup>...]

*lacuna*

The stele is perhaps the record of the year 338/7, inasmuch as a lease is renewed from the stele of Euboulos, archon in 345/4 (lines 7-8); see above pp. 199-202, for discussion of the duration of the leases.

Fragment a, lines 1-31, contains the records of six leases.

Lines 1-6: Artemisiakon leased by Leukios son of Theokles of Sounion. See No. 5, commentary on line 5, for Leukios. Kallaischros of Siphnos served as an Athenian trierarch *ca.* 370 (*I.G.*, II<sup>2</sup>, 1609, line 27) and his son Stesileides served in 334/3 (*I.G.*, II<sup>2</sup>, 1623, lines 204, 268). The appearance of the two names here as owners of adjoining property suggests their identification as the two Siphnians.<sup>66</sup> One or the other is probably to be restored as registrant in No. 5, line 2, and as property owner in No. 15, line 10, and in No. 25, line 29, where only the ethnic Σιφνί(ον) is preserved. Note that in No. 5, line 2, the Siphnian is registrant of a mine bounded by the property of Leukios of Sounion. These are the only non-Athenians who appear in the mining texts. The Epikrates of lines 5 and 11 is probably to be identified with the Epikrates of Pallene who owned property in the mining district in Nape in 367/6 (No. 1, lines 70-71). At least two men of this name from Pallene are known in the fourth century: Epikrates son of Menestratos (*P.A.*, 4909), who served as an amphictyon at Delos in 377 and as a trierarch *ca.* 342, and Epikrates son of ...otetos, a member of the Council in 335/4 (*I.G.*, II<sup>2</sup>, 1700, lines 200-201). Further, an Epikrates of Pallene (whose patronymic is not

<sup>66</sup> See Helen Pope, *Non-Athenians in Attic Inscriptions*, p. 23.



given) is known as lessee of a mine. A certain Lysander accused him of having worked a mine illegally and claimed that Epikrates and his associates had taken 300 talents from it (Hypereides, IV, 35). The charge was made sometime between 330 and 324.<sup>67</sup> The Epikrates of our texts who owned property in the mining district is probably the same Epikrates who was operating a mine later. He is probably one of the two whose patronymics are known and an identification with the trierarch (*P.A.*, 4909) would seem more probable than with the member of the Council, because of the implications of wealth; but the dates argue somewhat against this. This assumes a long, but not impossibly long, *floruit* for Epikrates, from 377 at least to 330.

Lines 6-13: Artemisiakon at Thalinos (?) in Nape. Since the lessee and registrant are normally the same in renewals recorded from earlier stelai, I have restored Thoutimides, without patronymic, as registrant in line 6, and assigned the letters to a hitherto unknown place name, Thalinos. This same name can also be restored in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 6 and 28) where a place name beginning with Θαλ- is needed (rejecting the restoration of the Corpus, θάλ[ατταν]). The lessee and registrant, Thoutimides son of Phantias of Sounion, was prytanis ca. 330 B.C. (*I.G.*, II<sup>2</sup>, 1752). The mine Phaneion at Anaphlystos (cf. No. 16 = *I.G.*, II<sup>2</sup>, 1582, line 130) was conceivably named by his father. Properties owned by Epikrates of Pallene and by Teleson of Sounion are named in the boundaries of another name at Nape (No. 1, lines 69-70).

Lines 13-17: A mine Ph- - - at Thorikos. The Dionysion to which a road leads is perhaps the sanctuary of Dionysos associated with the theater at Thorikos, the only known sanctuary of Dionysos in southern Attica (Solders, *Die Ausser-städtischen Kulte*, p. 41).

Lines 17-20: Heraikon at Thorikos. The name Heraikon (the alpha is clear on the stone) is new. The road at the north probably led either to Thrasymos or Laureion. For Eudraon, the registrant, see No. 5, line 52. Epikrates son of Isokrates of Euonymon, restored as lessee, is known as lessee of a mine at Laureion or Thrasymos in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 123-129). He is perhaps to be identified with Epikrates of Euonymon (*P.A.*, 4891), *lampadophoros* in the second half of the fourth century.

Lines 20-25: Artemisiakon. See No. 13, line 64, for discussion of the mining interests held by Pheidippos of Pithos and his family in Thorikos and Sounion. In spite of the temptation to consider him registrant of the following mine, inasmuch as he appears in the boundaries of it, there are fewer difficulties with the present restoration. See No. 16 (= *I.G.*, II<sup>2</sup>, 1582, line 119) for ἀνασάξιμον παλαιόν.

Lines 25-30: Artemisiakon. The restorations of the northern and southern

<sup>67</sup> The case was brought to trial in the month before the delivery of Hypereides' fourth oration, which is assigned to the period between 330 and 326; cf. P. W. K., *R.E.*, *sub* Hypereides.

boundaries are made on the assumption that this mine is close to, perhaps adjacent to, the Artemisiakon at Thorikos of No. 20, lines 4-9. See No. 5, line 21, for Phanostatos of Gargettos. The road (line 28) leads either to Thrasymos or Laureion.

Fragment b, lines 33-59, contains the records of six concessions.

Lines 38-42: Hermaikon in the property of the Philomelidai. See No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 70 ff.) for the record of Poseidoniakon at Thorikos ἐμ Φιλομηλιδῶν. The lessee Hagnon son of Thrasippos is to be identified with *P.A.*, 164. He and his brother Hagnotheos were contestants for an estate valued at two talents *ca.* 374 (Isaeus, IV). A Hagnotheos appears as lessee in two other texts: No. 13, line 63, and No. 32 (= *I.G.*, II<sup>2</sup>, 1587, line 4). The first is perhaps the brother of Hagnon, the second less probably, since the text is to be dated in the late 'twenties at the earliest.

Lines 43-47: A mine in the property of the Philomelidai. For [— — α]ρδαμηττος in line 45, see No. 36 (Peck, *Kerameikos III*, 1941, p. 13, no. 9) where the letters —ΑΡΔΑΜΗΤ— appear in a fragment almost certainly from a mining inscription. They probably represent a hitherto unknown place name, related to pre-Greek names like Ὑμηττός, Λυκαβηττός, etc.

Lines 48-52: For the restorations see No. 9, lines 10-16, the record of the same or of an adjacent mine.

Lines 53-58: Kydiades, father of the registrant (line 53) and perhaps worker of an adjacent mine (line 56) is a new name in Attic prosopography; Kydias, however, is known.

**21** (Plates 93-94). Two fragments of Hymettian marble from the same stele. Fragment a is made up of two joining pieces, both found among the marbles from section N, one on April 7, 1936, and the other on July 1, 1947; fragment b was found in modern fill in section P on March 13, 1936. Both preserve part of a rough-picked back surface.

Fragment a: height, 0.20 m.; width, 0.28 m.; thickness, 0.10 m.  
Inv. No. I 3983 + I 6030.

Fragment b: height, 0.085 m.; width, 0.132 m.; thickness, 0.10 m.  
Inv. No. I 3806.

Height of letters 0.004 m.

The writing is stoichedon with a square checker pattern in which ten units measure *ca.* 0.075 m. The intercolumniation, preserved only on b, is 0.012 m., *i. e.*, it is not part of the checker pattern.

## Frag. a

ΣΤΟΙΧ. 42(?)

- [.....<sup>21</sup>.....] I [.....<sup>20</sup>.....]  
 [.....<sup>20</sup>.....] ΩΝΙ:Α[.....<sup>18</sup>.....]  
 [-----]  
 [.....<sup>10</sup>.....] I [.....<sup>11</sup>.....] Ο [.....<sup>19</sup>.....]  
 5 [.....<sup>9</sup>.....]: I [.....<sup>32</sup>.....]  
 [.....<sup>9</sup>.....] Ω [.....<sup>32</sup>.....]  
 [-----]  
 [.....<sup>9</sup>.....] ΟΕΛ [.....<sup>30</sup>.....]  
 [.....<sup>11</sup>.....] ΦΙ [.....<sup>29</sup>.....]  
 10 [.....<sup>7</sup>.....] Θ [.....] ΟΥ [.....] I [.....<sup>22</sup>.....]  
 [.....<sup>7</sup>.....] ΩΙ [.....<sup>5</sup>.....] I [.....] / [.....] Σ [.....<sup>20</sup>.....] <sup>3</sup>Εκφ]  
 [αντίδη]ς Θεο[δώρα]ο[υ] Δεκελε[ : μέταλλον ἀπεγράψατο . . ]  
 [.....<sup>6</sup>.....] ΑΙ [.....] ΣΛ [.....] ΙΠ [.....] ΟΥΤ [.....] Ν [.....<sup>22</sup>.....]  
 [ . . . ἐν τ]οῖς ἐδάφε[σ]ιν [τ]ο[ῖς] Ἐπ[ιζήλου(?) ᾧ γεί: βορρά: ἡ]  
 15 [χαράδρ]α ἡ εἰς Ἀνά[φ]λυ[στον φ[έρον]σα ν[οτόθ:.....<sup>9</sup>.....]  
 [.....<sup>6</sup>.....] ης κ[α]λούμ[ε:] πρ[ὸς ἡλίον ἀ]νιό[ : ] Ε [.....<sup>11</sup>.....]  
 [..... ᾧ] νη: Ἐκφαν[τί]δης Θεοδώρο[υ] Δεκελ[ε: ΔΔ:.....<sup>5</sup>.....]  
 [..... Θ]εοκλέους [.....] [ : μέταλ]λον ἀπεγ[ράψατο . . . ]  
 [ . . . παλ]αῖον ἀνασ[άξιμον στή]λη[ν] ἔχον Εὐδῶ[τειον ἐν τ]  
 20 [οῖς ἐδά]φεσιν τοῖ[ς] Ἀντισθένης(?) ᾧ γεί[τ] : π[ρὸς ἡλίον]  
 [ἀνιόν:] καὶ νοτόθ : [.....] φ[ . ] ια : πρὸς [ἡλίον δυομ:]  
 [καὶ βορ]ρά: Ἀντισ[θένης Κυθηρρ: ἐδάφη ὠνη:.....<sup>6</sup>.....]  
 [..... Θ]εοκλέους [.....<sup>5</sup>..... : ΔΔ:.....<sup>20</sup>.....]  
 [.....<sup>7</sup>.....] : ἀπεγρ[άψατο .....<sup>24</sup>.....]

*lacuna*

## Frag. b

Col. I

- 25 [-----<sup>28</sup>----- ἡλίον ἀνι]όν: [ . . ] ε[ . ]  
 [-----<sup>30</sup>----- Ἐ]λευσίν:  
 [-----<sup>37</sup>-----]ιον: Νι  
 [-----<sup>37</sup>-----]ς Ἀχαρ  
 30 [-----<sup>40</sup>-----]Ε[ . ]  
 [-----<sup>41</sup>-----]Ο

Col. II

- [-----<sup>41</sup>----- σ]  
 τ[ή]λη[ν] ἔχον -----<sup>33</sup>-----  
 υς: Ε[-----<sup>36</sup>----- ἐρ]  
 γαστ[ήριον] -----<sup>29</sup>----- πρὸς  
 ἡλίο[υ] -----<sup>35</sup>----- Δη]  
 μοκρ[άτους(?) -----<sup>33</sup>-----]  
 μου [-----<sup>39</sup>-----]

*lacuna*



The inscribed surface, particularly on fragment a, is badly flaked and many of the readings are doubtful.

Lines 11-17: The mine recorded in these lines was probably at Anaphlystos, Besa, or Amphitrope, since the gully leading to Anaphlystos is named in its boundaries. An Epizelos of Phrearroi owned *edaphe* and a workshop at Besa (No. 5, lines 75 and 79) and is tentatively restored as owner of *edaphe* here. Since the registrant and lessee are the same, Ekphantides son of Theodoros(?) of Dekelea, and the record does not seem to be that of an *ergasimon* mine registered from an earlier stele, the price is probably twenty drachmai. A Theodoros son of Euphantides (*sic*) was priest of Zeus Phratrios in the phratry of the Demotionidai in 396/5 (*I.G.*, II<sup>2</sup>, 1237) and so a demesman of Dekelea (see *S.I.G.*<sup>2</sup>, no. 439, note 3). In our text the kappa is clear, but it is not improbable that an upsilon was read or written for a kappa in one of the texts and that the lessee of the mine is the son of the priest. See No. 9, line 7, for the use of *καλούμε(να)* in line 16.

Lines 17-23: Eudoteion, at Amphitrope or Besa. The lease of Eudoteion at Laureion is recorded in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 51-56), but the difference in boundaries makes any connection between the two highly improbable. The Eudoteion named as boundary of a mine in the very fragmentary text, No. 7 (= *I.G.*, II<sup>2</sup>, 1583, line 21) conceivably could be the Eudoteion of this text. Either *Βήσησιw* or *Ἀμφιτρ*: could be restored in lines 18-19. Antisthenes of Kytherros, restored in lines 20 and 22, owned property at Amphitrope. See No. 16 (Face B, Col. III, lines 3-10).

Part of the fourth letter of the demotic of registrant and lessee is preserved in line 18, and is either the top hasta of a sigma or the upper right hasta of an upsilon. A relatively short demotic is needed.

**22** (Plate 94). A fragment of Hymettian marble, with the inscribed face only preserved, found in late fill south of the Tholos, in section B, on April 19, 1934.

Height, 0.147 m.; width, 0.145 m.; thickness, 0.08 m.

Height of letters, 0.004 m.

Inv. No. I 631c.

The writing is stoichedon; ten horizontal units measure *ca.* 0.074 m., ten vertical units *ca.* 0.071 m.

ΣΤΟΙΧ.

[.....<sup>13</sup>.....] Ο[-----]  
 [.....<sup>12</sup>.....] ΟΛΧ[-----]  
 [.....<sup>12</sup>.....] αρωι Ε[-----]  
 [.....<sup>9</sup>.....] ΟΕΡ. ΙΠΙ[-----]  
 5 [.....<sup>10</sup>.....] ΙΟΝΛΗΣ[-----]

[...<sup>9</sup>...] ριον νοτ[όθεν -----]  
 [...<sup>5</sup>...] στήλ]ην οὐκ ἔχο[ν -----]  
 [...<sup>7</sup>...] Λυσ[ι]στρατο[-----]  
 [...<sup>5</sup>...] ὦ]ι γε[:] βο[ρ]ράθε[ν -----]  
 10 [...<sup>5</sup>...] ο. ᾠναφλ: ἡργάζ[ετο -----]  
 [...<sup>6</sup>...] ΚΛΙΟΗ[.] ΡΗ[.] Ω[-----]  
 [...<sup>6</sup>...] τοῦτο τὸ μέταλλ[ον -----]  
 [. ἀπεγρά]ψατο Ἑρμαικὸν Θ[ορικοῖ -----]  
 [...<sup>7</sup>...] ἀν]ό[: ὁ λ]όφος καὶ [-----]  
 15 [...<sup>17</sup>...] ΟΗΝΙ[-----]

*lacuna*

The face is badly worn and many of the readings are doubtful.

**23** (Plate 94). A small fragment of Hymettian marble found in a late Roman disturbance of the classical floor of the Agora south of the Propylon of the Bouleuterion, in section Z, in May of 1937. The inscribed face only is preserved.

Height, 0.06 m.; width, 0.075 m.; thickness, 0.016 m.

Height of letters, 0.004 m.

Inv. No. I 4883.

The writing is stoichedon with the horizontal unit of *ca.* 0.0074 m. and a vertical unit of *ca.* 0.0071 m.

ΣΤΟΙΧ.

[...<sup>11</sup>...] ᾠζ:| [-----]  
 [...<sup>5</sup>...] ὠνη:] Τιμοκλής [-----]  
 [...<sup>7</sup>...] Θ]εοδότου Με[λι: μέταλλον ἀπεγράψατο -----]  
 [...<sup>8</sup>...] ἀ]νασάξι: Θ[-----]  
 5 [...<sup>6</sup>...] ἐν το]ῖς ἐδάφε[σιν τοῖς -----]  
 [...<sup>6</sup>...] πρὸς ἡλ]ίου ἀν[ιόν: -----]  
 [...<sup>14</sup>...] πος [-----]

*lacuna*

The letters seem to be cut by the same stone mason who cut number No. 6.

**24** (Plate 95). A fragment of white, probably Hymettian, marble with part of the inscribed face, flat top, and smooth back preserved. It was found in a modern wall in section Σ on March 3, 1937.





the smaller unit correspond to 32 or 33 of the larger unit of line one. The first preserved letter of line 4 falls under the sigma of line 1. Thus at least 25 or 26 letters must be restored before the word ἀρχοντος of line 1. If δημόπρατα be omitted, thirteen or fourteen letters are left for the name of the archon, which is longer than that of any archon of the years between 340 and 330, to which this stele is probably to be assigned.<sup>69</sup> Therefore the longer heading is suggested and lines 4-9 are assigned to the second column.

The normal number of poletai was ten, one from each tribe. Note however that only eight were named on the stele of 367/6 (No. 1). If one restores three columns of 47 letters each in the text, the inscribed surface of the stele would be *ca.* 1.058 m. wide; if four columns of 39 letters each, *ca.* 1.176 m. wide. Under the first hypothesis there would be space for *ca.* 117 letters in each of the first three lines, under the second for *ca.* 130. This would give an average of 25 to 28 letters for the name of each poletes including patronymic and demotic (probably abbreviated), assuming a full membership of ten and the secretary.<sup>70</sup>

**25** (Plate 95). A fragment of Pentelic marble, with inscriptions on both sides, found in the walls of a late pit north and east of the Tholos in section Z on May 25, 1933. The inscription on the back, a prytany dedication of the second half of the second century after Christ, has already been published (*Hesperia*, XI, 1942, p. 63). The stone is broken all around.

Height, 0.375 m.; width, 0.21 m.; thickness, at top, including the moulding on the reverse, 0.095 m., of lower part, 0.085 m.

Height of letters, 0.004 m.

Inv. No. I 865.

The writing is stoichedon with a square checker pattern of which ten units measure 0.076 m.

and number of the prytany should be restored in line 4. By choosing the shortest possibilities, lines 4 and 5 could be restored to a 48-letter line, with forty letters to the left of the first preserved letter:

[ἐπὶ τῆς . . . <sup>8</sup> . . . πρώτης πρυτανείας, μέταλλον Ἡρ]αικὸν ἐπ[ὶ]  
[Σουνίῳ ἀνασάξι: ἐν τοῖς ἐδάφεσιν τοῖς . . . <sup>6</sup> . . . Σ]φηττί: ὦ[ι]

If these lines are from the second column the same minimum space at the left is required, for the 39 letters of column one and at least one unit between the columns.

<sup>69</sup> Themistokles, archon of 347/6, could technically be restored. The date seems too early.

<sup>70</sup> In 62 names listed in Dow, *Prytaneis*, nos. 1, 3 and 9, the median for name and patronymic is 18 letters.

## ΣΤΟΙΧ. 47

[.....<sup>27</sup>.....] ὦι γ]εί: β[ο]ρρ[.....<sup>10</sup>.....]  
 [.....<sup>28</sup>.....] ΚΟΥ[.....<sup>10</sup>.....] Κ[.....<sup>10</sup>.....]  
 [.....<sup>28</sup>.....] ΤΡΟ[.....] ΟΣΙ[.....] Ο[.....<sup>12</sup>.....]  
 [.....<sup>28</sup>.....] ΚΟΣ[.....<sup>8</sup>.....] Π[.....<sup>12</sup>.....]  
 5 [.....<sup>22</sup>.....] ΝΕΝΦ[.....<sup>7</sup>.....] Ε[.....<sup>13</sup>.....]  
 [.....<sup>19</sup>.....] ὦι γ]εί: [.....<sup>8</sup>.....] ΟΣ Ν[.....<sup>11</sup>.....]  
 [.....<sup>22</sup>.....] ΟΣ Ν[.....] : Εὐ[.....<sup>17</sup>.....]  
 [.....<sup>28</sup>.....] Λ[.....<sup>7</sup>.....] Κ[.....<sup>15</sup>.....]  
 [.....<sup>80</sup>.....] Ἐλευ[.....<sup>13</sup>.....]  
 10 [.....<sup>22</sup>.....] : Φρι[.....] ΛΑΝΩΦ[.....<sup>18</sup>.....]  
 [.....<sup>20</sup>.....] ΟΥΔΟΛ[.....] Λ.Λ[.....<sup>15</sup>.....]  
 [.....<sup>80</sup>.....] Υ[.....<sup>16</sup>.....]  
 [.....<sup>28</sup>.....] Λ:ΟΙ[.....<sup>20</sup>.....]  
 [.....<sup>12</sup>.....] πρὸς ἡλίου] δυομέ[: ἐρ]γ[αστ]ήρ[ιον .....<sup>9</sup>.....]  
 15 [----- ὠνη: -----] ἡς Φε.ο. .ρου[.....] Ι[.....<sup>12</sup>.....]  
 [.....<sup>20</sup>.....] Ο.Ο. .Ι[.....] ΕΝ[.....<sup>18</sup>.....]  
 [.....<sup>24</sup>.....] στήλην ἔχον ε[.....<sup>12</sup>.....]  
 [ὦι γεί:βορρ: ἡ ὁδὸς ἡ ἐκ Θορ]ικοῦ φέρου[σα] ἐπ[ὶ] Λαύρειον(?) ἡλί[  
 [ου ἀνιό: ἡ ὁδὸς ἡ ἐπὶ Θράσ]υμ[ο]ν φέρουσ[α ὦ]νη[: .....<sup>12</sup>.....]  
 20 [.....<sup>19</sup>.....] ι: [ἀ]π[εγράψ]α[το μ]έ[ταλλον .....<sup>8</sup>.....]  
 [.....<sup>18</sup>.....] Ι.ο[.....<sup>7</sup>.....] ἐπὶ Θορ[ασύμωι .....<sup>8</sup>.....]  
 [.....<sup>19</sup>.....] ὦι γεί: βορρ: Φαι[.....<sup>14</sup>.....]  
 [----- νοτό: -----] Σ]ουνιῶς ἐδάφη πρὸ[ς ἡλίου ἀνιό: .....<sup>4</sup>.....]  
 [.....<sup>19</sup>.....] ὦν πρὸς ἡλίου δυ[ομε: .....<sup>11</sup>.....]  
 25 [----- ὠνη: -----] εα... του [Κ]ολ[λντ: .....<sup>12</sup>.....]  
 [.....<sup>20</sup>.....] ἀ]πεγράψατο μ[έταλλον .....<sup>9</sup>.....]  
 [.....<sup>17</sup>.....] παλα[ιδὸν ἀνασάξ]ιμον ἐν τοῖς ἐδάφεσι]  
 [ν τοῖς .....<sup>17</sup>.....] ι: ὦι γεί[: βορρ: .....<sup>12</sup>.....]  
 [νοτό: χωρίον Στησιλείδον(?) Σ]ιφνί: πρ[ὸς ἡλίου ἀνιό: .....<sup>5</sup>.....]  
 30 [.....<sup>10</sup>.....] πρὸς ἡλίου δυομέ[: ἡ ὁδὸ[ς ἡ .....<sup>16</sup>.....]

lacuna

The stele must have been at least a meter wide at the time it was re-used for the Roman prytany dedication (cf. *Hesperia*, XI, 1942, p. 63; ca. 0.75-0.80 m. for the 25 letters of the text and 0.10-0.15 for the margin on each side). At that time this face was cut down and a projecting pediment left at the top, of which the left corner is preserved. Assuming that the edges of the original stele were kept, the preserved text of the mining inscription would be from the right-hand column, perhaps the

third of a three-column stele. Three columns of 47 letters with two units for the intercolumniations would give a width of *ca.* 1.09 m., not including the margins.

The surface is badly worn and is partially covered with cement. The letters are difficult to decipher and many of the readings are doubtful.

Lines 17-19: The roads to Thorikos and Thrasymos named in the boundaries suggest that the mine was in the northeastern part of the district, either Thorikos, Thrasymos, or Laureion. At the end of line 17, one might restore ἐμ Φιλομηλιδῶν or by lengthening the abbreviations in the next line ἐ[πὶ Λαυρέϊωι (or Θρασύμωι) ὧι γείτ: βορρᾶ ἢ ὁδός — —]. The property of the Philomelidai was apparently near Thorikos (No. 16 = *I.G.*, II<sup>2</sup>, 1582, lines 70 ff. and No. 20, lines 40 and 44). A Hermaikon at Laureion with a road from Thorikos to Laureion at the east, and one from Laureion to Thrasymos at the west, is recorded in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 63-69). Possibly the same mine is recorded in these lines, but the present text is so fragmentary, and the readings are so doubtful, that an identification can neither be supported nor refuted.

Line 25: The traces of letters preserved would support a reading εαγ[ν]ητου or εαμ[α]ντου for the end of the patronymic of the lessee.

Line 29: For Stesileides of Siphnos, see No. 20, lines 4-5.

**26** (Plate 96). An inscribed fragment of Hymettian marble, broken on all sides, found among the marbles in section K in 1934.

Height, 0.105 m.; width, 0.198 m.; thickness, 0.083 m.

Height of letters, 0.004 m.

Inv. No. I 2000.

The writing is stoichedon with a square checker pattern of which ten units measure *ca.* 0.074 m.

# ΣΤΟΙΧ. 39

- [.....<sup>22</sup>.....]: Διότι[μος Διοπέιθο]  
 [υς Εὐώ: ἀπεγράψατο μέ]ταλλον ἐπὶ [....<sup>8</sup>.... στήλ]  
 [ην ἔχον ἀνασάξιμον] Ἀφροδισ[ια]κ[ὸν ὧι γεί: βορρ:]  
 [.....<sup>12</sup>.....]: ν[ο]τό[:.] ΟΙΛ[.....<sup>16</sup>..... ἦ]  
 5 [λίον ἀνιό]ν: Δ[ιο]τίμο[ν] ἐ[ργα]στ[ήριον ἡλίου δυο: Ἀ]  
 [ντίμαχ]ος Ἀλωπ[εκ]ῆ: ὠνη: Δ[ιό]τ[ιμος Διοπέιθους Ε]  
 [ὦω: ΔΔ:] Φείδων Δ[ν]σ[ίω]ν Αἰξω[νε:] μέταλλον ἀπεγρά]  
 [ψατο .....<sup>10</sup>.... ἐν] τοῖς ἐδ[άφειν τοῖς .....<sup>7</sup>....]  
 [.....<sup>8</sup>.... ὧι γεί]: βορρ: ἢ ὅδ[ος ἢ .....<sup>14</sup>....]  
 10 [.....<sup>15</sup>.....] ΛΝ..Ο[.....<sup>19</sup>.....]  
 [.....<sup>14</sup>..... μ]έταλ[λον .....<sup>17</sup>.....]

*lacuna*



The surface is badly preserved and many of the readings are uncertain. The text contains the records of two leases.

Lines 1-7: An Aphrodisiakon, perhaps at Laureion or Thrasykos. Diotimos son of Diopeithes of Euonymon (*P.A.*, 4384), restored as registrant and lessee, served as general and trierarch in the third quarter of the fourth century. He is named as owner of a workshop and garden at Laureion in No. 16 (= *I.G.*, II<sup>2</sup>, 1582, lines 65-66), where the demotic but not the patronymic is given. His father Diopeithes (*P.A.*, 4318), trierarch *ca.* 370 (*I.G.*, II<sup>2</sup>, 1609, line 78), also had interests in the mines; he owned a workshop and other unspecified property at Laureion and probably at Thrasykos in 367/6 (No. 1, lines 53-54 and 78). Antimachos of Alopeke, restored as the owner of property at the west is named as lessee of an Aphrodisiakon in No. 8, line 8. It is probably not the same concession as the one in this text, but the two may well be close together.

Lines 7-11: The registrant, Pheidon son of Lysias of Aixone, is almost certainly to be identified with the Pheidon of Aixone who had a mortgage of one talent on a workshop and slaves in *I.G.*, II<sup>2</sup>, 2747. The mortgage stone was found near ancient workings in the plain of Thorikos, north of the church of St. George, northwest of the modern town of Thorikos (Cordella, *op. cit.*, p. 36; cf. map in Ardaillon). Our text is too fragmentary to make it possible to associate the workshop and the mine leased by Pheidon. The name Lysias is attested for the deme Aixone (*I.G.*, II<sup>2</sup>, 5446).

**27** (Plate 95). An inscribed fragment of Hymettian marble found in a late Roman context in the pillaged wall trench for the retaining wall of the Middle Stoa, section Θ, on June 18, 1947. The inscribed face only is preserved. Traces of red paint still remain in the letters of the first line.

Height, 0.039 m.; width, 0.042 m.; thickness, 0.02 m.

Height of letters, 0.004 m.

Inv. No. I 6016.

The writing is stoichedon with a square checker pattern of which one unit is *ca.* 0.0074 m.

ΣΤΟΙΧ.

[-----] ΗΡΑΔΔ : [-----]  
 [----- ἀπεργ] ἀψατο μ[έταλλον -----]  
 [----- ἐπὶ Θρασ] ὕμωι [-----]

*lacuna*

**28** (Plate 95). A fragment of white, probably Hymettian, marble found built into a Roman wall in section Σ on June 11, 1937. The inscribed face, original left edge, and

a smooth back are preserved. The lower part of the face is uninscribed but none of the original bottom is preserved.

Height, 0.195 m.; width, 0.19 m.; thickness, 0.07-0.073 m.

Height of letters, 0.004 m.

Inv. No. I 4967.

The writing is stoichedon with a square checker pattern of which ten units measure *ca.* 0.072-0.73 m.

ΣΤΟΙΧ.

- [ . . Ἐπ]αμείνον[ος] το[ῦ ----- ἡ ὁδὸς ἡ]  
 [εἰς] Θορικὸν φέρουσ[α νοτόθεν -----]  
 [ . . . ] Θορικού πρὸς ἡ[λίου ἀνιόντος -----]  
 [ . . ὕ]δατος ἐξαγωγή [-----]  
 5 [ . ] τοῦ Αἰσχυλίδου Θο[ρ]ικί[ου ----- κα]  
 [ι]νοτομία ἣν ἐργάζεται [----- Ἐπ]  
 αμείνονος Θορικού δυ[ο]μένον -----]  
 ς Περγασῆθεν ἀπεργ[ά]σατο μέταλλον --- ἐν τοῖς ἐδάφεσιν τοῖς πα]  
 ἰδων τῶν [Δ]ι[ο]τίμου Θρ[ιασίου] δι γείτων βορρᾶθεν ἡ ὁδὸς ἡ -- φέ]  
 10 ρουσα ν[ο]τόθεν κα[ι]ν[ο]τομία ----- Ἐξω]  
 πίου καὶ τὰ ἐδάφη [τ]ῶν [παίδων τῶν Διοτίμου ----- ἡ ὁδὸς ἡ ἐπ]  
 ἰ Λαύρε[ι]ο ν φέρο[ν]τα [ὠνητῆς -----]

*vacat*

This is probably from a single-columned stele, as is suggested by the uninscribed surface at the bottom of a left-hand column, by the relative thinness, and by the requirements for a long line.

Lines 1-6: These lines seem to contain the record of only one lease. The mine was perhaps in Thorikos, as is suggested by the mention in line 1 of Epameinon, a property owner in Thorikos (cf. No. 32 = *I.G.*, II<sup>2</sup>, 1587, line 18), and of a road to Thorikos (line 2). Line 4: In ὕδατος ἐξαγωγή the left hasta and cross-bar of the eta seem clear. The words ἐξαγωγός and ἐξαγωγῆς are both used with the meaning drain, but ἐξαγωγή has hitherto only been known with the meanings "leading out, exportation, deportation, or eviction." However I do not hesitate to translate it here as drain or waterpipe, especially as there were so many of these in the mining district in connection with the washing establishments.

Line 5: Aischylides of Thorikos probably was the father of a person named somewhere in the boundaries.

Line 6: There is a vacant space between the omicron and mu of καινοτομία. The surface of the stone is slightly rough and may represent either an original blemish or

an erasure. The new cutting is probably named as a boundary rather than as a separate lease. See No. 32 (= *I.G.*, II<sup>2</sup>, 1587, line 5-6), No. 35, line 3, and No. 38 (= *I.G.*, II<sup>2</sup>, 1586, lines 1 and 8).

Lines 7-12: The mine recorded in these lines may have been at Laureion. Note the road to Laureion in line 12, and the possible restoration of Exopios (lines 10-11), who is named as property owner at Laureion in No. 1, lines 44, 61-62.

**29** (Plate 96). Two inscribed fragments of Pentelic marble, probably from the same stele, found in a disturbed context southeast of the Tholos, in section Z, on June 9, 1937. Fragment a, composed of two joining pieces, preserves the original right edge and bottom. Fragment b is broken all around.

Fragment a: height, 0.097 m.; width, 0.105 m.; thickness, 0.037 m.

Fragment b: height, 0.055 m.; width, 0.08 m.; thickness, 0.013 m.

Height of letters, 0.003 m.

Inv. No. I 4944a and 4944b.

The writing is not strictly stoichedon on fragment a, although it was obviously intended to be so; lines 1-3 are stoichedon in relation to each other, as are lines 7 and 8. The last letter unit of lines 4-8 is left vacant. This suggests that the text was blocked out with lines of equal length and that the stonecutter crowded an extra letter into the left half of a line by mistake and thus had the extra unit at the end. The stoichedon pattern has a horizontal unit of 0.006 m., a vertical unit of 0.006-0.007 m.

Frag. a

ΣΤΟΙΧ. 39?

[.....<sup>34</sup>.....]ΕΙ[...]  
 [.....<sup>28</sup>..... μέταλλ]ον ἀπε  
 [γράψατο παλαιὸν ἀνασάξιμον Θορικοῖ] Ἄ[ρτ]εμισι  
 [ακὸν ἐν τοῖς ἐδάφε: τοῖς Λυσιθείδου π]αίδων Κικ  
 5 [υν: ὦι γεί: βορρά: ἡ ὁδὸς ἡ ἐκ Θορικο]ῦ ἐπὶ Λαύρει  
 [ον φέρουσα νοτόθ: ἡ ὁδὸς ἡ ἐκ Θορικο]ῦ Βήσα[ζ]ε φέρ  
 [ουσα πρὸς ἡλίου ἀνιόν: τὰ ἐδάφη τῶν] Λυσιθείδου  
 [παίδων Κικυν: ἡλίου δυο: ...<sup>7</sup>... Σ]υβρίδου χωρ  
 [ίον ὠνη: -----] *vacat*

*vacat*



Frag. b

10 [ . . . . . ] Θορίκι: [-----]  
 [ . . . . . πα]λαιὸν ἀνα[σάξιμον-----]  
 [ . . . . . ] Ἑρμαικὸν [-----]  
 [ . . . . . τ]οῖς Φρε[-----]

*lacuna*

Lines 2-8: Artemisiakon at Thorikos(?). For the restorations see above, No. 6, lines 8-12, and No. 20, lines 4-9, both records of an Artemisiakon at Thorikos in the property of Lysitheides. See also pp. 195-196, for discussion of identity of mines recorded in separate texts. The mention of the children of Lysitheides as owners of property shows that he himself had died before the time of this inscription. His death was probably not much later than the mid 'thirties (discussed above under No. 6), which thus would give a *terminus post quem* for the present text.

**30** (Plate 96). An inscribed fragment of Hymettian(?) marble, broken all around, found in a late Roman context east of the Tholos, in section Z, on May 5, 1937.

Height, 0.043 m.; width, 0.096 m.; thickness, 0.012 m.

Height of letters, 0.003 m.

Inv. No. I 4783.

The writing is stoichedon in a pattern of which the horizontal unit measures 0.006 m., the vertical 0.007 m.

*vacat*

[ . . . . .<sup>12</sup> . . . . . ] Ἀ]φ[ι]δναι[-----]  
 [ . . . . .<sup>11</sup> . . . . . ] <οις ὧι γεί[-----]  
 [ . . .<sup>7</sup> . . . . . ] βορρᾶ Ἀνδροκλέ[ονς-----]  
 [ . . .<sup>5</sup> . . . . . ] ἔδνομένον τὸ ῥο[-----]  
 [ . . .<sup>6</sup> . . . . . ] ἡ ὁδὸς [-----]

*lacuna*

In letter forms and spacing this stone is very like the preceding text, No. 29. The marble, however, is distinctly grey in color, whereas that of No. 29 is the typical cream-colored Pentelic. Note also that the colon is omitted after an abbreviation in line 3, whereas it is found in line 9 of No. 29.

The text may be from a record of sale of property rather than from a mining lease.

**31** (Plate 96). An inscribed fragment of Pentelic marble, broken on all sides, found in section Z in the Great Drain on April 11, 1933.

Height, 0.162 m.; width, 0.103 m.; thickness, 0.049 m.

Height of letters, 0.006 m.

Inv. No. I 680.

The writing is stoichedon. The horizontal unit measures 0.014 m., the vertical 0.013 m.

ΣΤΟΙΧ.

	[..... <sup>10</sup> .....]Ο[-----]
	[..... <sup>10</sup> ..... ἐπὶ Θρα]σύμω[ι-----]
	[..... <sup>13</sup> ..... ἀπ]εγράψ[ατο-----]
	[..... <sup>11</sup> ..... ἐν το]ῖς ἐδά[φουσιν τοῖς-----]
5	[..... <sup>11</sup> ..... ἀνα]σάξιμο[ν-----]
	[. ὧι γεί; πρὸς ἡλί; ἀ]νιό; Μόσ[χου(?)-----]
	[..... <sup>11</sup> ..... πρὸ]ς ἡλί; δυ[ο;-----]
	[..... <sup>14</sup> .....]ον νοτ[ό;-----]
	[..... <sup>14</sup> .....]ν βορ; Δ[-----]
10	[..... <sup>14</sup> .....] ὠνη; Εμ[-----]
	[..... <sup>12</sup> ..... Κα]λλιστρ[ατο(?)-----]
	[..... <sup>14</sup> .....] Διοκλε[-----]

*lacuna*

The letters are carelessly cut. The vertical hasta of the epsilon projects below the bottom cross-bar, and similarly the vertical hasta of the gamma extends slightly above the cross-bar. Parallels for the forms of the letters can be found in inscriptions dating from about 320 B.C. (cf. *Kirchner, Imagines*, no. 65, 321/0-319/8).

**32.** *I.G.*, II<sup>2</sup>, 1587 and 1588, two fragments of white marble probably from the same stele. The first is in the British Museum, taken to England by Lord Elgin, and the second is in the Berlin Museum and said to be from the northern part of Athens. Both preserve an original left edge and are apparently otherwise broken all around. The writing is not stoichedon. The measurements as published show that the spacing of letters and lines corresponds closely.<sup>71</sup> The form of the records is identical in

<sup>71</sup> *I.G.*, II<sup>2</sup>, 1587, according to the data in *Inscriptions in the British Museum*, I, no. 36, is 11 inches high and 11 inches wide. There are 22 lines preserved; with a height of *ca.* 0.276 m. (11 inches), the line unit would be about 0.0125 m. The greatest number of letters preserved in any line is 33; with a width of 0.276 m., ten letters would occupy about 0.083 m. In *I.G.*, II<sup>2</sup>, 1588, 18 lines are preserved to a height of 0.22 m., i. e., *ca.* 0.0122 m. per line unit, and 27 letters in a width of 0.22 m., i. e., *ca.* 0.081 m. for ten letters.

both; the record of each lease begins at the left edge of the column, and the colon is used for punctuation, not only, as in the other stones of this series, to mark abbreviations or set off numbers.

A line 65 to 75 letters long seems to be required by the text and so it is probable that the stele had only one column. *I.G.*, II<sup>2</sup>, 1588 should probably be placed below 1587. Three of the four mines recorded on it are *anasaxima*, and therefore it should be below the heading *ἀνασάξιμα* in line 13 of 1587. Together the two stones contain the records of seven *anasaxima* mines, one new cutting *καινοτομία*, and two or three (lines 1-4 and 9-11 of 1587) which are either new cuttings or in working order.

The internal evidence dates the text in the last quarter of the fourth century.

Telesikles son of Kallias of Araphen (*I.G.*, II<sup>2</sup>, 1587, line 8) is probably brother of the Kallisthenes son of Kallias of Araphen listed with other members of his tribe who appear elsewhere in the 'fifties and 'forties (*I.G.*, II<sup>2</sup>, 2388). The Kallisthenes of Araphen, son of Phanomachos, prytanis in the year of Euboulos III, 256/5 (*I.G.*, II<sup>2</sup>, 678), is probably the grand-nephew of Telesikles the operator of the mine. The *floruit* of Telesikles would thus be in the 'twenties. (The *stemma*, *sub* Kallisthenes I, *P.A.*, 8097, should be adjusted to correspond with the present dating of Euboulos III. Cf. Pritchett and Meritt, *Chronology of Hellenistic Athens*, pp. xxi and 26).

Kallimedon son of Kallikrates of Kollytos (*I.G.*, II<sup>2</sup>, 1587, line 12) is to be identified with Kallimedon the Crab (*P.A.*, 8032), prominent member of the pro-Macedonian party and friend of Phokion in the 'twenties. During the short-lived democratic régime of 318 he was condemned to death *in absentia* (Plutarch, *Phocion*, 35; cf. Ferguson, *Hellenistic Athens*, pp. 31-34). There is no record of his return to Athens later, but he may well have returned when Demetrios of Phaleron was established in the next year.

Epikydes son of Philokydes of Acharnai, lessee of two mines (*I.G.*, II<sup>2</sup>, 1588, lines 3, 4, 8) appears on a recently discovered stele (now in the Liopesi museum) which is dated by the letter forms in the second half of the fourth century. His father Philokydes was prytanis in 360/59 (*I.G.*, II<sup>2</sup>, 1745).

Kephisodoros of Athmonon, father of the lessee Euphemides (*I.G.*, II<sup>2</sup>, 1587, lines 17, 20) appears as lessee of a mine in No. 9, line 9, a text probably dating from the 'forties.

In *I.G.*, II<sup>2</sup>, 1588, lines 13 and 17, one might restore *Εὐμηλίδης Λυ|κίνου Συβρίδης]* as registrant and lessee, known from a fourth century grave stele from the Kera-meikos, *I.G.*, II<sup>2</sup>, 7476.

The only property owner named in the text who can be identified with any probability is the owner of the *edaphé* in 1587, line 18, where I suggest reading *Ἐπαμείνωνος Θ[ορικίου]* and identifying him with the Epameinon of Thorikos who appears, probably as property owner in Thorikos, in No. 28, lines 1, 6-7.

A prytany date is named in line 10 of 1587, *ἐπὶ τῆς Ἐρεχθίδος δευτέρας πρυ*



ταν[είας]. Erechtheis is known to have held the second prytany in 320/19 (*I.G.*, II<sup>2</sup>, 380; cf. Pritchett and Neugebauer, *Calendars of Athens*, p. 61). A date for the stele in that year would fit the prosopographical evidence very well. An inspection of the stones and the letter forms would be necessary, before one could suggest as early a date as that with any assurance.

A few variants from the restorations as published in the Corpus follow:

*I.G.*, II<sup>2</sup>, 1587:

Lines 7 and 11: The workshop of line 7 should not be identified with the mine called the Diphileion in line 11. See No. 18, and commentary on line 18 for the Diphileion.

Line 17 can be restored with a line of 71 letters:

[Ἄρτ]εμισιακὸν: Θεορικοῖ Εὐφημίδης Κη[φισοδώρου Ἀθμο: ἀπεγράψατο μέταλλον ἀνασάξιμον].

Line 18: [ἐν τοῖς] ἐδάφεσι τοῖς Ἐπαμείνωνος Θ[ορικ: ----].

Line 21 should probably read [--- ἡ ὁδ]ὸς ἡ ἀ[πὸ] Λαυρε[ίου ---]. The eta and alpha were read from a squeeze of this stone.

*I.G.*, II<sup>2</sup>, 1588:

Line 4: Ἑρμαῖκὸν: Ἐπικύδης Φ[ιλ]οκύδου[ς Ἀχαρνε: ἀπεγράψατο μέταλλον παλαιὸν ἀνασάξι].

Line 13: [Β]ήσ<η>σι Λευ[κ]ίππειον Εὐμηλ[ί]δη[ς Λυκίνου Συβρίδ: ἀπεγράψατο μέταλλον παλαιὸν].

A Leukippeion at Besa is recorded in No. 1, line 82.

**33** (Plate 97). An inscribed fragment of Hymettian marble, broken on all sides, found in the foundations of a late Roman house to the east of the Tholos, in section Z, on May 10, 1937.

Height 0.04 m.; width, 0.105 m.; thickness, 0.075 m.

Height of letters, 0.006 m.

Inv. No. I 4835.

The writing is not stoichedon.

[-----]νος χωρί[ον-----]  
[----- καινο]τομία ἦν ἀ[πεγράψατο-----]  
[----- ἀ]πεγράψατ[ο-----]  
[-----]ΟΥΣΑΝΕ[-----]

*lacuna*

The new cutting, [καινο]τομία, of line 2, since it is in the nominative case, is apparently the boundary of a mine.

34 (Plate 97). *I.G.*, II<sup>2</sup>, 1589 and Agora Inv. No. I 1723. *I.G.*, II<sup>2</sup>, 1589, is from the upper left corner of a stele of Hymettian marble with part of the left edge, a pedimented top, and a rough picked back preserved, found near the Tower of the Winds (now in the Epigraphical Museum, E.M. 7959).<sup>72</sup> The fragment from the Agora assigned to this same stele was found in a late context in the region of the Bouleuterion Plateia, section B, on March 30, 1934. It is broken on all sides.

Height, 0.10 m.; width, 0.07 m.; thickness, 0.023 m.

Inv. No. I 1723.

Height of letters, both pieces, 0.005 m.

The writing is stoichedon, except for some irregularity in lines 1 and 2, set in a checker pattern of which the horizontal unit is 0.009 m., the vertical 0.010-0.011 m.

307/6 B.C. ΣΤΟΙΧ. 34(?)

Πωληταὶ οἱ ἐπὶ Ἀναξικρ[άτους ἄρχοντος <sup>v v v v</sup>]

μέταλλα τάδε ἀπέδοντο [<sup>v v</sup> ἐπὶ τῆς . . . . .<sup>9</sup>]

[ς] πρώτης πρυτανείας [<sup>v</sup> ἑκατομβαιῶνος δευ]

[τέρ]αι ἰσταμένον π[αλαιὸν ἀνασάξιμον Ἀρτ]

5 [εμ]σιακὸν ἐ[ . . . . .<sup>24</sup> . . . . .]

*lacuna*

10 [ . . . . .<sup>11</sup> . . . . .]ι <sup>v</sup> ἐ[πὶ τῆς . . . . .<sup>9</sup> τρίτης]

[πρυτανεία]ς Πνανω[ψιῶνος δευτέραι ἰσταμ]

[ένου ἐργά]σιμα <sup>v</sup> Φ[ . . . . .<sup>17</sup> . . . . . ἀπ]

[εγράψατο μ]έταλλο[ν ἐκ τῆς στήλης τῆς ἐπὶ Ν]

[ικοδήμου(?) Λ]άχειον [ . . . . .<sup>19</sup> . . . . .]

15 [ . . . στήλη]ν ἔχον Δημ[ητριακὸν . . . . .<sup>9</sup> ἐ]

[ν τοῖς ἐδάφ]εσιν τοῖς [ . . . . .<sup>18</sup> . . . . .]

[ . . . . .<sup>12</sup> . . . . .]ν Θορ[ . . . . .<sup>18</sup> . . . . .]

[ . . . . .<sup>14</sup> . . . . .]Ρ[ . . . . .<sup>19</sup> . . . . .]

*lacuna*

314/3

Similarity of marble, letter forms, spacing, and length of line, makes it almost certain that these two pieces are from the same stele. About half the width of the original stele is preserved on the larger piece, as is shown by the carelessly incised

<sup>72</sup> Height, 0.24 m.; width, 0.22 m.; thickness, at top 0.067 m.; at bottom, 0.05 m.

star in the pediment (see Plate 97) which must have been placed in the approximate center. The letters in the left half of lines 1 and 2 are set more closely together than those of the lower lines, with 19 letters in the space of 17. This spacing suggests the two vacant units restored in line 2. By actual count however the number of letters in the line is the same (34) as that suggested for the lower lines.

The new fragment can be restored to fit the most recent reconstruction of the calendar equations for the year 307/6.<sup>73</sup> According to that reconstruction the second day of Pyanopsion was the thirtieth day of the third prytany, and the tribal name available for the third prytany is either Akamantis, or Aiantis, or Leontis. The present text suggests that it was held by Aiantis or Leontis, one of which is to be restored in line 10. The first prytany is known to have been held either by Erechtheis or Kekropis.

Lines 10-12 contain a heading for renewals of leases of *ergasima* mines. The space available for the name of an archon in lines 13-14 suggests that the record is a normal renewal of a long term lease.<sup>74</sup> Nikodemos, archon in 314/3, has been tentatively restored, since other evidence suggested a seven year period (see above, pp. 200-201). In this text, however, Demogenes, archon for 317/6 (with genitive ending in *ov*) would fit equally well, and the interval could thus be ten years.

[Λ]άχειον in line 14 is not otherwise known as the name of a mine. The form derives from the proper name Λάχης and is similar to attested names like Phaneion, Diphileion, and Pyrrhieion. It is probably used here as an alternate name or epithet of the Demetriakon of the line below.<sup>75</sup>

**35** (Plate 97). An inscribed fragment of Pentelic marble, broken all around, found among the stones from section B in November of 1934.

Height, 0.12 m.; width, 0.15 m.; thickness, 0.052 m.

Height of letters, 0.004-0.005 m.

Inv. No. I 2015.

<sup>73</sup> Pritchett and Meritt, *Chronology of Hellenistic Athens* (1940), p. 21. Note, however, the reservations expressed on the calendar equations of this year by Pritchett and Neugebauer, *Calendars of Athens* (1947), p. 69.

<sup>74</sup> No previous registrant is named and the name of the archon of 310/9, Hieromnemon, who should be named in a normal renewal of a short term three year lease, is too long. On the length of leases, see above, pp. 199-202.

<sup>75</sup> Only one letter space is available before the preserved letters, since the shortest archon's name in the period between 317/6 and 310/09 is of nine letters. Therefore a restoration Σημάχειον which is the only word found in these inscriptions with the ending —άχειον is impossible. Furthermore, the Semacheion of No. 16 (= *I. G.*, II<sup>2</sup>, 1582, line 54), named as part of the southern boundary of a mine at Laureion, is probably a sanctuary rather than the name of a mine (Solders, *Die Ausserstädtischen Kulte*, p. 41).



The text is not stoichedon; five letters occupy a space of 0.04-0.046 m.; five lines occupy a space of *ca.* 0.055 m.

[-----]ΟΙ[-----]  
 [-----]ος τοῦ Καλλ[-----]  
 [-----]ν]οτό καινοτομ[ία-----]  
 [-----]οκλείδου Σοννι[-----]  
 5 [-----]α ἐπὶ Θρασύμωι [-----]  
 [-----] πρὸς ἡλίου δυομ[-----]  
 [-----]  
 [-----]Ρ[-----]  
 [-----]Τ[-----]

The inscribed face is very badly worn and the lower part completely illegible.

Line 4: The names Hierokleides and Aristokleides are both attested for Sounion in the fourth century: Hierokleides on his own and his daughter's grave stelai (*I.G.*, II<sup>2</sup>, 7437 and 7412), Aristokleides as secretary of a board of officials *ca.* 325 (*Hesperia*, XV, 1946, p. 178). Either could be restored here.

**36.** *Kerameikos, Ergebnisse der Ausgrabungen*, III (Peek, *Inscripten, Ostraka, Fluchttafeln*), p. 13, no. 9 (Taf. 6, 2). This fragment of Pentelic marble with carelessly written stoichedon letters, 0.005 m. high, is very probably from a mining inscription. The original right edge is preserved.

#### ΣΤΟΙΧ.

[-----]κ]λῆς Ἀμφι  
 [τροπ:-----]αρδαμητ  
 [τός-----ὠνη:-----]ΗΔΔ::ΕΠ  
 [-----]χίων Σο  
 [ννι-----]

Lines 2-3: cf. No. 20, line 45, where -- ρδαμηττός is apparently a place name near Thorikos.

**37** (Plate 97). An inscribed fragment of Hymettian marble found in section Z, on May 19, 1937, in a late Roman context southeast of the Propylon of the Bouleuterion. The original top is preserved; the stone is broken at the sides and back.

Height, 0.09 m.; width, 0.083 m.; thickness, 0.026 m.

Height of letters, in line 1, 0.013 m., in lines 2-5, 0.004-5 m.

Inv. No. I 4874.

The text is non-stoichedon. The lines are spaced in a vertical unit of *ca.* 0.01 m.

[ΤΑΔ' ΕΠΡΑΘΗ ΜΕΤ]ΑΛΛΑ[<sup>v</sup>]  
 [ἐπὶ τῆς .....<sup>8-12</sup>..... πρώτης πρυτανείας Ἀπολλ]ωνιακὸν ἐν Θρ[ασύμωι(?)]  
 [----- εἰς]ήνεγκε μέταλ[λον ἐκ]  
 [τῆς στήλης τῆς ἐπὶ ----<sup>6-12</sup>---- ἄρχοντος ἐργάσιμ]ο<sup>v</sup> Ἀπολλωνι[ακὸν ἐν]  
 [τοῖς ἐδάφεσιν τοῖς ---- στήλην ἔχον] ὧι γεί πρ[ὸς ἡλίου]

*lacuna*

The carelessly cut letters suggest that this is the latest text in the series. Parallels for them can be found on inscriptions dating from the end of the fourth and early third centuries.<sup>76</sup> This text is probably from the same period.

The fragment is probably from a single-column stele (cf. Nos. 32 and 34) which seems to be the type of these later records. Normal restorations in lines 3 and 4 suggest 51 to 57 letters to the line. Approximately the same number of letters can be restored in line 2. On this basis nine to twelve of the larger letters of line 1 are to be restored to the left of μέταλλα.

A parallel for the heading in line 1 is found in another poletai record of the late fourth century, *I.G.*, II<sup>2</sup>, 1581,<sup>77</sup> which reads τὰδ' ἐπράθη ἐδάφη.

The restoration ἐν Θρ[ασύμωι] in line 2 is questioned since in all other texts mines at Thrasymos are registered ἐπὶ Θρασύμωι.

38. *I.G.*, II<sup>2</sup>, 1586, "ex schedis Fourmonti." The text of this stone, seen and read only by Fourmont, is very uncertain. If καινοτομία be correctly restored in lines 1 and 8, the stele should be dated close to the end of the period. The text as published in *I.G.*, II<sup>2</sup>, should be compared with that in Boeckh's *Corpus*, No. 163; in the later publication many of the readings and spacings have been shifted to fit possible restorations.

The only registrant or lessee whose name is preserved on the stone, partly in restorations, Herakleides son of Sosistratides of Acharnai (line 15) is unknown. In line 7 one might read the name of the mine as Ν[υ]μφαικ[όν]; see No. 5, lines 53-54.

<sup>76</sup> Cf. Kirchner, *Imagines*, nos. 69 and 72 of 303/2 and 299/8; also *I.G.*, II<sup>2</sup>, 378 of 294/3 (Photograph in *Hesperia*, VII, 1938, p. 98) and *Hesperia*, X, 1941, no. 20, ca. 300 B.C. For other references to carelessly cut letters on some of the inscriptions of the end of the fourth century, see *Hesperia*, VIII, 1939, p. 39.

<sup>77</sup> In the publication in the *Editio Minor*, two lines of erasure are indicated above the first line. An examination of the stone in the Epigraphical Museum at Athens (E.M. 7958) shows this to be incorrect. The surface is broken away; a projecting moulding probably has been chipped off, as suggested in the original publication (*Ἀθήναιον*, VIII, 1879, p. 273).

## CHART

The chart gives the place, name, price, relationship of registrant and lessee, and classification for every lease in which any one of these items is preserved. Column II contains any information available about the stele, opisthographic or non-opisthographic, number of columns and the approximate number of leases in the text as preserved. In Column III the numbers at the left are those assigned for convenience to the leases on the particular stone; where no data are preserved about a lease, it is omitted in the record. Wherever an additional cutting is included in the lease (*κατατομή, ἐπικατατομή, συντομή*), the words "and cutting" are added after the name of the mine in Column IV. A square bracket at the left or right of the price indicates that the text is incomplete on that side and that one or more numbers could be restored. Column VI notes the presence or absence of a registrant and the relationship of registrant to lessee where both are preserved. R = L means that registrant and lessee are the same; R ≠ L, that registrant and lessee are different. R alone means that the name of the registrant or the verb (*ἀπεγράφω*) is present but that the text is too fragmentary to show whether he is the same as the lessee. The classification of the mine is shown in the last column. Those "from the stele" of No. 1 are the same as the *ergasima* of the later texts (see above p. 196). The words "not ergas" indicate that enough text is preserved to preclude a restoration of the phrase *ἐκ τῆς στῆλης τῆς ἐπὶ* — which normally accompanies an *ergasimon* lease. A question mark at the left of *anasaximon* shows that the text is too incomplete to support or refute a restoration of *palaion* before it. Brackets indicate restorations.

I	II	III	IV	V	VI	VII
TEXT NO.		PLACE	NAME	PRICE		CLASSIFICATION
1	non opisth. stele	1 Nape	Dexiakon	20	No R	Omitted
		2 Laureion	Diakon	20	named	"
367/6	single	3 Sounion	No name	20	on this	
	column	4 Nape	Poseidoniak.	1550	stele	" from the stele "
	Complete	5 Omitted	Hagnosiak.	1550		" " "
	17 leases	6 "	Artemisiak.	150		" " "
		7 Laureion	No name; and cutting	20		Omitted
		8 Nape	Demetriak.	20		"
		9 Maroneia	Hermaikon	20		"
		10 Laureion	Theognideion	50		" from the stele "
		11 Sounion- Nape	Pyrrhieion	20		Omitted
		12 Thorikos	Archeget.	20		"
		13 Nape	No name	20		"
		14 Besa	Archeget.; and cutting	20		"
		15 Sounion- Thrasymos	Kerameik.	20		"
		16 Sounion- Nape	No name	20		"
		17 Sounion- Besa	Leukippeion	150		" from the stele "
2	non opisth. stele	1 -----	-- mpiak.	---		
		2 Thorikos	-- aikon	---	R	



I	II	III	IV	V	VI	VII
TEXT NO.		PLACE	NAME	PRICE		CLASSIFICATION
	single column	3 Aulon	-- ikon	---		
	8 leases ?	4 Thrasymos		60[		
		5 Bambideion hill	Apolloniakon	---		
		6 Maroneia	Poseidoniakon	---		
		7 -----		]150		
3	non opisth. 5 leases ?	2 Sounion	-- ion	---		
		3 -----		500		
		4 -----		---	R	
4	opisth. stele	1 -----	{ Kerameikon Artemisiak. Pyrrhieion	---		
	single column	2 -----		---		
		3 -----		150		
	Face A, 8 leases	4 Sounion	Ano Nymphaik.	---	[No R]	
		5 -----		]10		
		6 -----		---	R	
		7 -----		---	R	
		8 Thorikos		---		
	Face B, 6 leases	2 -----		---		? ANAS.
		3 -----		---	R	
		5 -----		---		? ANAS.
		6 -----		---	R	
5	non opisth. stele at least 3 columns	1 (Sounion ?)	Poseidoniak.	1210	[R]	[ANAS.]
		2 Sounion	K --	100[	No R	? ANAS.
		3 -----		---	[No R]	? ANAS.
a.	Col. I 3 leases					
	Col. II 3 leases	1 -----		]500[		
		2 (Sounion ?)	Theo --	---	[No R]	
		3 -----	Heroikon ?	---	R	[PAL.]ANAS.
b. }	Col. I	2 [Sounion ?]		100[	[R #]L	(not ergas.)
c. }	3 leases	3 -----	K --	---	R	(not ergas.)
	Col. II	2 [Besa]	Aphrodisiak.	---	[No R]	[omitted]
	4 leases	3 -----		---	R # L	ANAS.
		4 [Maroneia]	Nymphaikon	---	No R	ANAS.
d.	Col. I 2 leases	2 -----		---	R	
	Col. II 3 leases	1 -----		200		
		2 Besa	Apolloniak.	---	R # L	ANAS.
		3 "	Athenaikon	---	R # L	ANAS.
e.	2 leases	1 -----	Athenaikon	150[		
		2 Bambideion hill		---	R	

I	II	III	IV	V	VI	VII
TEXT NO.		PLACE	NAME	PRICE		CLASSIFICATION
	f. Col. I ? Col. II 2 ?	2 -----		---	R	
6	a. 4 leases	2 Thorikos	- niak. ; and cutting	500	R	
		3 Thorikos	Artemisiak.	---	R # L	[ANAS.]
		4 -----	-- and cutting	---	R	
7	non opisth. ? at least 2 columns 5 leases	2 Thrasymos 4 ----- 5 Amphit.		--- --- ---	 R [R]	? ANAS. [PAL. ANAS.] ANAS.
8	3 leases	1 ----- 2 -----	Aphrodisiak. Dionysiak.	--- ---	R # L R	[ANAS.] [PAL. ANAS.]
9	non opisth. ? 4 leases	2 ----- 3 ----- 4 -----	- siak.  Hermaikon	--- --- ---	R R # L R	PAL. ANAS. [PAL.] ANAS. [PAL.] ANAS.
10	non opisth. ? 3 leases	1 ----- 2 Besa 3 [Besa]	Ktesiakon Apolloniak.	150 --- ---	 R # L R	 [PAL. ANAS.] PAL. [ANAS.]
11	2 leases	2 Thrasymos		---	R	PAL. ANAS.
12	a. 1 lease	1 -----	- aiikon	---		? ANAS.
13	opisth. several columns	2 ----- 3 ----- 5 -----		--- --- ---		ERGAS. ERGAS. ? ANAS.
	a. Face A, 6 leases Face B ca. 4 leases	6 ----- 3 ----- 4 -----		---  10[ ---	  R	  (not ergas.) [PAL.] ANAS.
	b. Face A 2 leases Face B 2 leases	2 Thrasymos 2 Sounion	- akon Artemisiak.	--- ---	No R R = L	[ANAS.] [PAL. ANAS.]
	c. 2 leases	1 ----- 2 -----		10[ ---	 [R]	(not ergas.) ? ANAS.
	d. 2 leases	2 [Sounion ?]		---	[R]	Omitted
	e. 2 leases	2 -----		---		PAL. [ANAS.]
	f. 3 leases	1 ----- 2 ----- 3 -----		500[ --- ---	 [R] [R]	
	g. 2 leases	1 ----- 2 -----		]250 ---	 [No R]	
	h. 2 leases	1 -----	- kon	20		(not ergas.)
	i. scrap					

I	II	III	IV	V	VI	VII
TEXT NO.		PLACE	NAME	PRICE		CLASSIFICATION
	j. non mining					
	k. 1 lease	1 [Thrasymos]	Artemisiak.	---		
	l. m. n. o. p. q. r. scraps					
	s. 1 lease	1 -----		---		? ANAS.
14	opisth. several col.					
	Face A					
	7 leases	1 -----		20		(not ergas.?)
		2 [Maroneia]	Nymphaikon	10[	No R	[PAL. ANAS.]
		3 -----	Heroikon	---	No R	ANAS.
		4 Sounion		10[	R + τιμή	[PAL.] ANAS.
		5 -----		---	R + τιμή	(not ergas.)
		6 -----	Athenaikon	---	R	(not ergas.)
	Face B					
	non mining					
15	opisth.					
	a. Face A	2 -----		150[		
	7 leases	4 Besa		---	[No R]	ANAS.
		5 (Sounion ?)		]150	No R	(not ergas.)
		6 Besa		---	No R	
		7 "		---		
	Face B	1 -----		---	[R + ] τιμή	
	5 leases	2 Anaphlystos		---	R[+ τιμή]	[PAL. ANAS.]
		3 -----		---	R[+ τιμή]	PAL. ANAS.
		4 -----		---	R	
	c. 2 leases	1 -----		150		
		2 -----		---		? ANAS.
	e. 2 leases	2 -----		---	[R]	
16	opisth.	2 -----		---		PAL. ANAS.
	4 columns	3 -----		---	R	
	each face.	4 Sounion		---		
	A. Col. I	10 (Sounion?)		---		
	ca. 14 leases					
	on b	1 -----		6100		
	3 leases on c	2 [Amphit.]	Demetriak.	---	R	PAL. ANAS.
		3 -----		---		ANAS. [PAL.]
	Col. II	2 -----		---	R	
	ca. 16 leases	9 -----		---		PAL. [ANAS.]
		10 (Laureion?)	-- and cutting	]400		? ANAS.
		11 -----	Dionysiak.	150	R	(not ergas.)
		12 -----	Ploutoniak.?	---	[No R]	
		13 Thrasymos	Hermaikon	---	[No R]	[PAL. ANAS.]
		14 "		---	[No R]	? ANAS.



I	II	III	IV	V	VI	VII
TEXT No.		PLACE	NAME	PRICE		CLASSIFICATION
		15	"	---	R	PAL. ANAS.
		16	"	---		
	Col. III	1	-----	150		
	10 leases	3	Sounion	150	No R	(not ergas.)
		4	Thorikos	150	R # L	PAL. ANAS.
		5	Laureion	150	No R	ANAS.
		6	Bambideion	150	No R	PAL. ANAS.
			hill			
		7	Laureion	150	R = L	ERGAS.
		8	Thorikos	150	R = L	(ERGAS.)
			and cutting			
		9	Laureion	150	R = L	ERGAS.
		10	-----	---	R	(ERGAS.)
	Col. IV	1	Amphitrope	---	R [= L]	[PAL. ANAS.]
	9 leases	2	[Amphitrope]	---	R = L	[PAL.] ANAS.
		3	Anaphlystos	---	R = L	[PAL.] ANAS.
		4	"	20	R = L	[PAL. ANAS.]
		5	"	---	R = L	[PAL. ANAS.]
		6	"	20	R = L	ANAS. PAL.
		7	(omitted)	20	R = L	ANAS.
		8	Anaphlystos	130	R # L	ANAS.
		9	Thorikos	---	R	PAL. ANAS.
			and cutting			
	B. Col. I	2	Thrasymos	---	R	[PAL. ANAS.]
	ca. 8 leases	3	"	---		
		4	"	---	[R]	[PAL.] ANAS.
		5	"	---	R	[PAL. ANAS.]
		6	"	---		
		7	"	---		
		8	"	---	R	[omitted]
	Col. II					
	Illegible					
	Col. III	2	Amphitrope	20	R = L	PAL. ANAS.
	2 leases					
	then non					
	mining					
18	Non opisth.	1	-----	2000[		
	At least two	2	Besa	---		
	columns	3	Besa-Pangaion	---		
	Col. I	4	" "	160[		
	11 leases	5	(Besa?)	]1400	[R?]	
		6	Besa	---	R # L	
		7	"	150	R # L	ERGAS.
		8	"	---	R	PAL. ANAS.
		9	[Besa]	---	R	[ANAS.]
		10	[Besa]	---	R # L	[PAL. ANAS.]
		11		---	R	

I	II	III	IV	V	VI	VII
TEXT No.		PLACE	NAME	PRICE		CLASSIFICATION
	Col. II	2 Amphitrope		---		
	7 leases	3 -----		---	R	[PAL. ANAS.]
		4 -----		---	[R]	PAL. [ANAS.]
		5 Amphitrope		---	R [=L]	ERGAS.
		6 " "	Theodosion	---	R [=L]	ERGAS.
		7 Thorikos	Artemisiak.	---	R	ANAS.
19	non opisth. at least 2 columns 9 leases	2 Thorikos	Artemisiak.	150	R = L	ERGAS.
		3 -----		150	R = [L]	ERGAS.
		4 Thorikos	Labiakon	150	R = L	ERGAS.
		5 Maroneia		---	No R	[ANAS.]
		6 " "	Aso --	---	No R	[ANAS.]
		7 -----	Hermaikon	---	R # L	[ANAS.]
		8 -----		150	R	(not ergas.)
		9 -----		---	R	PAL. [ANAS.]
20	At least 2 columns a. 6 leases	1 -----	Artemisiak.	200		[PAL. ANAS.]
		2 Thalinos (?) - Nape	Artemisiak.	150	[R] = L	ERGAS.
		3 Thorikos	Ph --	160	No R	ANAS.
		4 " "	Heraikon	200	R # L	Omitted
		5 (omitted)	Artemisiak.	---	R # L	ANAS.
		6 (omitted)	Artemisiak.	---	No R	[ANAS. PAL.]
	b. 5 leases	1 -----		800		
		2 Philomelidon	Hermaikon	---	R	
		3 " "		100	[R	(not ergas.)
		4 -----	- iakon	---	R	
		5 -----		]150	R	[PAL.] ANAS.
21	non opisth. at least 2 columns a. 5 leases	3 -----		---	R = L	
		4 -----	Eudoteion	---	R = L	PAL. ANAS.
		5 -----		---	R	
22	3 leases	3 Thorikos	Hermaikon	---	R	
23	2 leases	2 -----		---	R	? ANAS.
24	non-opisth. 3 or 4 cols. 1 lease	1 -----	-- aikon	---		
25	3 or 4 cols. ca. 6 leases	5 Thrasymos		---	R	
		6 -----		---	R	PAL. ANAS.
26	2 leases	1 -----	Aphrodisiak.	---	R = L	[ANAS.]
		2 -----		---	R	
27	2 leases	1 -----		]170		
		2 Thrasymos		---	R	

I	II	III	IV	V	VI	VII
TEXT No.		PLACE	NAME	PRICE		CLASSIFICATION
28	non-opisth. single col. 2 leases	2 -----		---	R	
29	a. 1 lease	1 [Thorikos]	Artemisiak.	---	R	[PAL. ANAS.]
	b. 1 lease	1 -----	Hermaikon	---	[R]	PAL. ANAS.
31	2 leases	1 Thrasymos		---	R	? ANAS.
32	Single col.	2 Thrasymos	Aphrodisiak.	---		KAINOTOMIA
	a. <i>ca.</i> 7 leases	3 Thorikos	Demetriakon	---		
		4 -----	Diphileion	---		
		5 Amphitrope	Athenaik. ; and cutting	---	R	? ANAS.
		6 Thorikos	Artemisiak.	150[	R = L	? ANAS.
		7 -----				PAL. ANAS.
	b. 5 leases	2 -----	Hermaikon	100[	R = L	? ANAS.
		3 Sounion	Poseidoniak.	---	R = L	? ANAS.
		4 Besa	Leukippeion	---	R = L	? ANAS.
		5 Sounion				? [ANAS.]
33	2 leases	2 -----		---	R	
34	non-opisth. single col.					
	a. 1 lease	1 -----	Artemisiak.	---	[No R]	PAL. [ANAS].
	b. 1 lease	1 -----	Demetriak.	---	R	ERGAS.
35	2 leases	2 Thrasymos		---		
36	2 leases	1 -----		]120		
37	single col. 1 lease	1 Thrasymos	Apolloniak.	---	R	ERGAS.
38	<i>ca.</i> 3 leases	1 -----		---		KAINOTOMIA
		2 -----	Nymphaik.	---	R	KAINOTOMIA ?
		3 Thorikos		---		? ANAS.



## LIST OF NAMES ARRANGED BY DEMOTICS AND ETHNICS

All persons named in the mining texts and in the related material of the fourth century whose demotic or ethnic is preserved (or has been restored) are listed below. A man described as a property owner is one named in the boundaries of a mine either in the nominative case, or as owner of a *chorion*, or in incomplete texts where either the case ending or the type of property is missing. Known owners of *edaphe* and workshops are described as such, but some no doubt are concealed among the property owners from incomplete texts. The absence of a descriptive word indicates that the text is too fragmentary to show whether the man was an operator or a property owner. A question mark after a name indicates some uncertainty about the name or demotic; a question mark after the descriptive word indicates some uncertainty about the part the man played. Text references are given for broken names and in cases where the demotic only is preserved; for the other references and for details of restorations see the Index of Names.

## Acharneis

- Diotimos Mnesistratou, lessee
- Epikydes Philokydous, registrant and lessee
- Herakleides Sosistratidou (?), lessee
- son of -- s, lessee (?), 15 6
- s, 21 29

## Agryleis

- Demon, lessee
- Teisis, informant against mine operators

## Aigilieis

- Kleokritos, property owner
- Pyrrhakos, property owner
- , registrant, 14 47
- , 5 62

## Aithalidai

- Kephisodotos, lessee, owner of workshop and other property
- s son of Kephisodotos, lessee, 15 23

## Aixoneis

- Pausistratos Philistidou (?), lessee
- Pheidon Lysiou, registrant and holder of mortgage on workshop and slaves
- Telesarchos, lessee
- , owner of *edaphe*, 16a = *I.G.*, II<sup>2</sup>, 1582 109

## Alopekeis

- Antimachos, lessee and property owner
- Hipponikos, owner of slaves used in the mines
- Kallias, property owner
- N. i . . . .<sup>8</sup> . . . (? Alopekethen or Plotheus), owner of *edaphe*

- son of -- los (? Alopekethen or Plotheus), registrant, 13 7

## Amphitropaieis

- Euthykrates, owner of workshop
- Euthykrates Euthykratous, lessee
- kles Sostratou, lessee, 18 27
- kles, 36 1
- s, registrant, 9 17
- s, owner of *edaphe*, 7 = *I.G.*, II<sup>2</sup>, 1583 24
- , (? abbreviation can be restored either as demotic or as location of mine), 13 79
- , (? abbreviation can be restored either as demotic or as location of mine), 18 45-46

## Anagyrasioi

- Meidias, lessee and property owner
- Thrasylochos (brother of Meidias), lessee

## Anaphlystioi

- Epikrates Alexiadou (?), lessee
- os, mine operator, 22 10
- , registrant, 6 13
- See also commentary on 11 10

## Aphidnaioi

- Dropides Hermippou (?), lessee
- Kleonymos Philocharous, lessee
- son of -- ippos, lessee, 5 11
- , 30 1

## Araphenios

- Telesikles Kalliou, lessee

## Athmoneis

- Euphemides Kephisodorou, registrant and lessee

- Kephisodoros, lessee  
 --- son of Nikodemos (?), registrant, 9 3
- Deiradiotai  
 Timokles Phanok-- (? Deiradiotes or Marathionios), registrant  
 ---, lessee, 15 66
- Dekeleis  
 Ekphantides Theodorou, registrant and lessee  
 Menexenos Metaxenou, registrant and lessee
- Eiresides  
 ---, lessee, 13 77
- Eiteaieus  
 --- son of --- los, registrant and lessee, 16a  
 = *I.G.*, II<sup>2</sup>, 1582 106-107, 112
- Eleusinioi  
 Hiketes (?), lessee  
 -- s, property owner, 20 23  
 ---, lessee, 16a + b = Face A col. II 55  
 ---, 21 27  
 ---, 25 9
- Erchieis  
 -- anes, property owner, 13 24  
 -- s, lessee, 5 68
- Euonymeis  
 Antixenos, lessee (?)  
 Diopeithes, owner of workshop and other property  
 Diotimos Diopeithous, registrant and lessee, owner of workshop and other property  
 Epikrates Isokratous, registrant and lessee  
 Philokrates, owner of workshop and unspecified property  
 --- son of -- s, registrant, 13 86  
 -- s, 2 20  
 ---, registrant or lessee, 16b = *Hesperia*, V, pp. 393 ff., 10 214  
 ---, owner of *edaphe*, 12 4
- Gargettioi  
 Aisimides Diophanous, registrant and lessee  
 Diophanes, owner of workshop  
 Phanostratos, registrant, owner of workshop and *edaphe*  
 --- son of Diphilos, lessee, 18 18  
 --- son of Phanostratos (?), registrant, 5 20-21
- son of -- stratos, registrant, 10 = *I.G.*, II<sup>2</sup>, 1585 15  
 -- es, owner of *edaphe*, 20 21-22  
 ---, 13 101
- Hagnousios  
 Chairedemos, lessee
- Halaieis  
 Nausikles (?? Halaieus, Palleneus or Phalereus), registrant  
 -- les, registrant, 18 33  
 --- son of -- s, registrant and lessee, 19 4, 9
- of Kedoi  
 Diokles, owner of workshop (?)
- Kephaleis  
 Lysanias Lysikleous, registrant and lessee  
 --- son of Antigenes, lessee, 19 27
- Kerameus  
 Epiteles, lessee
- Kikynneis  
 Lysikrates (?), property owner  
 Lysitheides, owner of *edaphe* and unspecified property  
 Children of Lysitheides, owners of *edaphe*, 29 4, 7
- Kollyteis  
 Hypereides Glaukipou, lessee  
 Kallimedon Kallikratou, lessee  
 Mnesikles, owner of workshop  
 --- son of -- ea...tos, lessee, 25 25
- Koloneis  
 Kerykides, mine operator  
 --- son of -- okles, lessee, 18 8
- Kopreioi  
 Leochares, owner of workshop and *edaphe*  
 Xenokles, claimant of workshop, see commentary on 14 9
- Kropides  
 Euthykrates Antidotou, registrant and lessee
- Kydantidai  
 Nikeratos (son of Nikias II), owner of *edaphe* and unspecified property  
 Nikias (= Nikias I *P.A.* 10808), owner of 1,000 slaves used in the mines  
 Nikias (= Nikias II son of Nikeratos), property owner

- Timokrates (? Kydantides or Kydathenaieus), lessee
- Kydathenaieus
- Timokrates (? Kydathenaieus or Kydantides), lessee
- Kytherrhioi
- Antisthenes, owner of *edaphe*
- Aspetos (son of Demostratos), owner of workshop and unspecified property
- Autophantos, owner of workshop and *edaphe*
- Demostratos, owner of furnace
- Lamptreis
- Kallias, lessee and property owner
- Polymelos, lessee
- Smikros, registrant
- , registrant, 4 29
- , lessee,  $16a + b = \text{Face A Col. II } 60$
- , registrant 18 28
- , registrant, 18 38
- Lousieus
- os, registrant, 9 10
- Marathonioi
- Timokles Phanok--- (? Marathonios or Deiradiotes), registrant
- ...ilos Charimedou (?), lessee, 19 3
- Meliteis
- Onetor Arkesilou, registrant and lessee
- Theodoros Olympichou, registrant and lessee
- s son of Ktesibios, lessee,  $16b = \text{Hesperia, V, pp. 393 ff., } 10\ 2$
- son of Theodotos, registrant, 23 2
- Myrrhinousioi
- Mnesidamas Aristodamantos, registrant and lessee, owner of *edaphe*
- s, lessee (?), 20 30
- ?(Myrrhinousios or Phrearrhios), registrant, 14 28
- Oethen
- les, property owner, 19 21
- son of ---ates, lessee, 5 87
- , lessee or registrant (?), 13 164
- of Oion
- Aristoteles Opsiadou, registrant and lessee
- des Theotimo, registrant, 5 47
- son of ---ades, lessee, 19 37
- Paianiaieis
- Diodoros, owner of workshop
- Phanotheos Lysippou, registrant and lessee
- Simos Diodorou, lessee and owner of workshop
- Smikythos (?), holder of mortgage on workshop and slaves
- les Simo, lessee, 5 29
- ros, property owner, 15 20
- son of ---on (?), lessee,  $16a + b = \text{Face A col. II } 74$
- Palleneis
- Epikrates, property owner, see commentary on 20 5-11
- Nausikles (?? Palleneus, Halaieus or Phalereus), registrant
- Theoros Theaio, lessee
- son of ---u...os, registrant or lessee, 12 8
- , lessee,  $16a = I\ G., II^2, 1582\ 45$
- Pambotades
- (? Pambotades or Skambonides), lessee 3 10
- Peiraieis
- Philophron, property owner
- , lessee, 15 12
- Pelex
- Aleximachos, lessee
- Pergasethen
- s, registrant, 28 8
- Phalereis
- Nausikles (?? Phalereus, Halaieus or Palleneus), registrant
- rates, owner of workshop, 18 30
- Phegaieis
- son of ---s, lessee (?),  $16b = \text{Hesperia, V, pp. 393 ff., } 10\ 299$
- , owner of workshop, 24 7
- Philaidēs
- Archias or Lysias Lysistratou, registrant and lessee, 19 9, 13
- Phrearrhioi
- Agenor, registrant
- Diopheithes Diokleido, lessee (?)
- Epizelos, owner of workshop and *edaphe*
- Kephisophon .....<sup>10</sup>..., lessee



- Timokleides Hypsichidou, registrant and lessee  
 --s, owner of *edaphe*, 13 18  
 ---, owner of hill (?), 16a = *I.G.*, II<sup>2</sup>, 1582 131-132  
 --- (? Phrearrhios or Myrrhinousios), registrant, 14 28
- Phylasios  
 Eubios Eueniou, registrant
- Pitheis  
 Diochares Diokleous, registrant and lessee and property owner  
 Diokles, property owner  
 Diphilos Pheidippou, registrant and lessee, owner of workshop and *edaphe*  
 Pheidippos Phayllou, registrant and lessee, owner of workshop, of *edaphe*, and of unspecified property
- Plotheis  
 N. i....<sup>s</sup>... (? Plotheus or Alopekethen), owner of *edaphe*  
 --- son of --los (? Plotheus or Alopekethen), registrant, 13 7
- Porios  
 --- son of --oros, registrant and lessee, 5 73, 18 22
- Potamioi  
 Nikandrides, owner of house  
 Simylos (?), owner of workshop
- Prospaltios  
 ---, property owner, 15 47
- Skambonides  
 --- (? Skambonides or Pambotades), lessee, 3 10
- Sounieis  
 Ameinias Philinou, lessee  
 Diokles, property owner  
 Diophanes, property owner  
 Diphilos Diopeithous, see commentary on 18 18-22  
 Eupolemos ....<sup>s</sup>...us, lessee and owner of workshop  
 Kimon, property owner  
 Leukios Theokleous, lessee and property owner  
 Meixiades, property owner
- Mnesilochos, registrant  
 Philinos, lessee  
 Semonides, owner of *edaphe*  
 Teleson, property owner  
 Thoutimides Phaniou, registrant and lessee  
 Timesios, owner of *edaphe*  
 --kritos, registrant, 2 9  
 --- son of --okleides, registrant or lessee, 35 4  
 --os, property owner (?), 14 25  
 --chion, 36 4  
 ---, registrant or lessee (?), 16b = *Hesperia*, V, pp. 393 ff., 10 217-218  
 ---, owner of workshop (?), 13 42-43  
 ---, owner of workshop, 13 53  
 ---, owner of workshop, 16a + b = Face A col. II 5  
 ---, owner of *edaphe*, 25 23  
 ---, property owner, 5 9  
 ---, property owner (?), 13 106  
 ---, property owner, 15 28
- Sphettioi  
 Arizelos, owner of two workshops  
 Epikles, lessee  
 Euetion Autokleidou, lessee  
 Euthydikos Mnesitheou, registrant and lessee  
 Kallias, lessee and property owner  
 Phaidros Kalliou, registrant  
 Polyeuktos, lessee  
 Thymochares (? son of Kallias), lessee  
 ...<sup>s</sup>... son of Epikles, lessee, 5 36  
 --- son of --chos, lessee, 10 = *I.G.*, II<sup>2</sup>, 1585 6  
 --es, property owner (?), 13 158  
 --s, property owner, 15 40  
 ---, owner of *edaphe*, 24 5
- Sybridai  
 Eumelides Lykinou, registrant and lessee  
 Kephisophon, lessee  
 ---, property owner, 29 8  
 --- (? Sybrides or Sypalettios), registrant, 16a + b = Face A col. II 56
- Sypalettioi  
 Isandros Stratokleous, registrant and lessee  
 Lysikles Zelarchou, lessee  
 Stratokles Isandrou (?), lessee

- (? Sypalettios or Sybrides), registrant,  
 16a + b = Face A Col. II 56  
 Themakeis  
 Diodoros Pherekleous, registrant and lessee  
 Pherekles, owner of *edaphe*  
 Thorikioi  
 Aischines, property owner  
 Epameinon, owner of *edaphe* and other prop-  
 erty (?)  
 Eudraon Eudraonos, registrant and lessee,  
 property owner  
 Mantias, lessee  
 Mantitheos Mantiou, lessee  
 Nikias, owner of *edaphe*  
 Smikythos, property owner  
 --- son of Aischylides, property owner (?),  
 28 5  
 --- son of Chares, lessee, 20 47  
 -- as, lessee, 2 12  
 ---, former operator of mine, 4 8  
 ---, lessee, 6 8  
 ---, property owner, 28 3  
 ---, registrant or lessee, 29 10  
 Thriasioi  
 --- son of Aischylos, lessee, 5 15  
 Children of Diotimos (?), owners of *edaphe*,  
 28 9  
 Thymaitades  
 --- son of -- tos, lessee, 14 2-3  
 Non- Athenians  
 Siphnians  
 Kallaischros, owner of *edaphe*  
 Stesileides (son of Kallaischros ?), owner  
 of workshop and unspecified property  
 See commentary on 20 1-6  
 Thracian  
 Sosias, hired slaves from Nikias for use in  
 the mines

## EPIGRAPHICAL INDEX

The Index covers all the inscriptions which are treated in this study, including those recording mining leases and boundary stones of mines which are not reprinted here. It also includes the names associated with the Laureion mines found in the literature of the fourth century. The names from texts recording the sale of confiscated property and names of officials are described as such. All the rest are concerned with the mines, either as operators (registrants or lessees), or as owners of workshops, *edaphe*, or other property named as boundaries. See above, List of Names arranged by Demotics and Ethnics, for explanation of the usage followed in the descriptive words after the names.

## NAMES OF MEN

- A[---], owner of house, 18 10  
 A[---], owner of *edaphe*, 16a = *I.G.*, II<sup>2</sup>, 1582 42  
 [Ἀ]γῆν[ω]ρ Φρεάρρι(ος), registrant, 4 13  
 Ἀγνόθεος, lessee, 32a = *I.G.*, II<sup>2</sup>, 1587 4  
 Ἀγνόθ[εος], lessee, 13 63  
 Ἀγνων Θρασίππου, lessee, 20 42  
 [Αἰν]ησίστρατ[ος], named in text dealing with confiscated property, 14 39  
 Αἰσ[---], father of registrant or lessee [---]ρίας, 15 32, see commentary on 5 68  
 Αἰσιμίδης Διοφάνους [Γαργ(ήπτιος)], registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 112, 117  
 Αἰσχ[---], father of Χαίρεας, 5 68  
 [Αἰ]σχέας Ε[ὐ]σθ[ένους], registrant, 16a = *I.G.*, II<sup>2</sup>, 1582 84  
 Αἰσχίνης Θορί(κιος), property owner, 16a = *I.G.*, II<sup>2</sup>, 1582 73-74; A. [Θ.] 19 17-18  
 Αἰσχυλίδης Δ[---], lessee, 10 = *I.G.*, II<sup>2</sup>, 1585 13  
 Αἰσχυλίδης Θο[ρ]ίκιος, father of property owner, 28 5  
 [Αἰ]σχυλος, 3 13  
 [Αἰ]σχυλος (Θριάσιος), father of lessee, 5 15  
 Ἀλ[---], owner of *edaphe*, 16a = *I.G.*, II<sup>2</sup>, 1582 183  
 Ἀλε[---], owner of *edaphe*, 13 97  
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 φάντου] 5 55, Αὐτοφ<ά>ντου 14 5; owner of  
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- [Δ]ι[ό]τιμος Θρ[ιασιεύς], father of owners of *edaphe*, 28 9
- Διοφ[---], property owner, 12 11
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- Διοφάνης Γαργήτιος, owner of workshop, Δ. Γα[ρ-  
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- Διοφάνης Σουνι(εύς), property owner 1 = *Hesperia*, X, pp. 14 ff., 1 59; [Δι]οφάνης Σ. 13 68;  
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- [Διοχάρης Δι]οκλέους Πιθε(ύς), registrant and  
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- Δίφιλος, convicted by Lykourgos of illegal work  
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- [Δί]φιλος (Γαργήτιος), father of lessee 18 18
- Δίφιλος Φειδίππου Πιθεύς, registrant and lessee,  
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- Δίφιλος Διοπίθους Σουνιεύς, see commentary on  
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- Δρομοκ[λε]ίδης, owner of *edaphe*, 32b = I.G.,  
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- Δρωπίδης 'Ε[ρμί]ππου 'Α[φ]ιδν(αῖος), lessee, 19  
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- 'Επαμείνων Θορίκιος, owner of *edaphe*, 'Ε. Θ[ορί-  
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- 'Επίζηλος Φρεάρρ(ιος), owner of workshop and  
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- 'Επιθέ[της], property owner, 5 95
- 'Επικλές Σφήτ(ιος), lessee, 1 = *Hesperia*, X,  
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- 'Επικράτης 'Α[λεξιάνδρου 'Αναφλ(ύστιος)], lessee,  
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- 'Επικράτης 'Ισοκράτους Εὐω(νυμεύς), registrant  
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- 'Επικύδης Φιλοκύδους 'Αχαρνε(ύς), registrant and  
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tary on 10 15
- 'Επιτέλης ἐκ Κερα(μέων), lessee, 1 = *Hesperia*,  
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- 'Επιχάρης, owner of *edaphe*, 10 = I.G., II<sup>2</sup>, 1585  
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- 'Ε[ρμύ]ππου (Αφιδναῖος), father of Δρωπίδης,  
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- Εὐ[---], owner of *edaphe*, 5 23
- Εὐ[---], registrant, 20 58
- Εὐάγγε[λος], owner of *edaphe*, 13 67
- Εὐβιος Εὐη[νίου Φυλά(σίου)], registrant, 16a =  
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- [Εὐβ]ο[υλος], archon, 345/4, 20 7-8
- [Ε]ὐδιος Μελιτ(εύς), κλητήρ 14 41
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- Εὐ[επί]ων Αὐτοκλείδου Σφήτ(ιος), lessee, 16a =  
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- Εὐή[νιος] (Φυλάσιος), father of Εὐβιος, 16a =  
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- Εὐθύδικος Μνησιθέου Σφήττιος, registrant and  
lessee, [Ε. Μ]νησιθέου Σ. 10 = I.G., II<sup>2</sup>, 1585  
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- [Εὐθυκράτης Εὐθυ]κράτους Ἀμφιτρ(οπήθεν), lessee, 18 3, 19 31; see commentary on 19 9-13
- Εὐθυκράτης Ἀντιδότου Κρωπ(ίδης), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 59-60, E. Ἀντι-δ[ότου K.] 18 65, [69]
- Εὐμηλίδης Λυ[κίνου Συβρίδης], registrant and lessee, 32b = *I.G.*, II<sup>2</sup>, 1588, 13, 17; see commentary on 32
- Εὐπόλεμος [...<sup>8</sup>...] vs Σουσι(εύς), lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 134-5; owner of workshop, E. *ibid.* 132
- Ε[ὐ]σθ[ένης], father of [Αἰ]σθέας, 16a = *I.G.*, II<sup>2</sup>, 1582 84
- Εὐφημίδης Κηφισοδώρου Ἀθμο(νούς), registrant and lessee, 32a = *I.G.*, II<sup>2</sup>, 1587 17, 19
- Εὐφράνωρ Φιλ[---], lessee, 5 20
- Ζήλαρχος (Συπαλήττιος), father of [Λ]υσικλῆς, 18 37
- [Ἡ]ρα[κ]λείδ[ης] Σωσ[ισ]τρατί[δο]υ Ἀχ[α]ρ-(νούς), registrant, 38 = *I.G.*, II<sup>2</sup>, 1586 15
- Θεαῖος (Παλληνούς), father of Θεώρος, 6 12
- Θεμιστίος, owner of workshop, 4 10
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- Θ[ε]ο[---], father of Πολύμνηστος, 5 46-47
- [Θ]εόδοτος Με[λιτ(εύς)], father of registrant, 23 2
- Θεόδωρος Α[---], registrant(?), 16a = *I.G.*, II<sup>2</sup>, 1582 152
- Θεό[δωρ]ος (Δεκελεύς), father of Ἐκφαν[τί]δης, 21 12, 17
- Θεόδωρος Ὀλυμπίχου Μελι(τεύς), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 99, 106, [Θεόδωρο]ς Ὀλυμπ[ίχου M.] 5 79-80
- [Θ]εοκλῆς, father of registrant and lessee, 21 18, 23
- Θεοκλῆς (Σουσιεύς), father of Λεύκιος, [Λεύκι]ος Θεοκ[λέου]ς Σ. 20 5-6, [Λ. Θεο]κλέους Σ. 16a + b = Face A col. II 70
- Θεότιμος (ἐξ [Ο]ἰ[ου]), father of registrant [---]δης, 5 47-48
- Θεόφιλος, archon 348/7, 16a = *I.G.*, II<sup>2</sup>, 1582 76, [Θ.] *ibid.* 83, [18 61, 66]
- Θεόφιλος, registrant and lessee, 32b = *I.G.*, II<sup>2</sup>, 1588 9, 12
- Θέωρος Θεαῖο Παλλη(νούς), lessee, 6 12
- Θούδημος, archon 353/2, [Θουδή]μο 13 3, Θεο[v]-δ[ήμο] 13 6
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- Θουτιμ[ίδης Φανίου] Σουσι(εύς), lessee 20 12-13; registrant [Θ. Σ.] 20 6
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- Θρασύλοχος Ἀναγυρά(σιος), lessee 1 = *Hesperia*, X, pp. 14 ff., 1 49, 51-52
- Θυμοχάρης, lessee, *Ath. Mitt.*, LXII, 1937, p. 11, No. 12; see commentary on 13 94
- Θω[---], registrant(?), 2 21
- Ἰεροκλ[---], father of Ἀνδροκλῆς, 18 5
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- Ἰππισ[κος], registrant or lessee, 18 44
- Ἰππόνικος (Ἀλωπεκῆθεν), owner of slaves in the mines, Xenophon *de vect.* iv, 15
- [Ἰ]σανδρος Στρατοκλέους Συπαλή(ττιος), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 92-3, 98-99; father of Στρατοκλῆς 18 17
- Ἰσοκράτης (Εὐωνυμής), father of Ἐπικράτης, 16a = *I.G.*, II<sup>2</sup>, 1582 123, 129, [20 19-20]
- Κ[---], owner of *edaphē*, 18 29
- Καλ[λ---], lessee, 4 25
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- Κ[α]λλ[α---], 15 16
- Κάλλαισχ(ρ)ος Σ[ίφν(ιος)], owner of *edaphē*, 20 3
- Καλλι[---], owner of property registered for confiscation, 14 47
- Καλλι[---], named in text dealing with confiscated property, 16d 5
- Καλλίας, owner of workshop, 5 70; of *edaphē*, [5 45]
- Καλλίας, property owner, 16a = *I.G.*, II<sup>2</sup>, 1582 53
- Καλλίας Ἀλωπ(εκῆθεν), property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 64
- Καλλίας (Ἀραφῆνιος), father of Τελεσικλῆς, 32a = *I.G.*, II<sup>2</sup>, 1587 8



- Καλλίας Λαμπτρ(ένς), lessee and property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 62, 73, 74; see commentary on 5 70
- Καλλίας Ξφήττι(ος), lessee and property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 42, 48, 65; father of Φαῖδρος, 16a = *I.G.*, II<sup>2</sup>, 1582 181; see commentary on 13 94
- Καλλικράτης (Κολλυτεύς), father of Καλλιμέδων, 32a = *I.G.*, II<sup>2</sup>, 1587 12
- Καλλικρατίδ[ης], lessee, 18 32
- Καλλίμαχος, archon 349/8, 16a = *I.G.*, II<sup>2</sup>, 1582 62, 72
- Καλλιμέδων Καλλικράτου Κολλ(υτεύς), lessee, 32a = *I.G.*, II<sup>2</sup>, 1587 12
- Κάλλιππος, defendant in mining case, Deinarchos LXXI, Blass III<sup>2</sup> 2, 304 No. 29
- [Κα]λλίστρ[ατος(?)], registrant(?), 31 11
- [Κε]φαλίων, see below Φιλίων
- Κηρυκίδης ἐκ Κο[λων(οῦ)], mine operator, 13 20
- Κηφισο[---], lessee(?), 13 95
- Κη[φ]ισόδ[---], property owner, 6 2
- [Κηφ]ισόδοτος, owner of *edaphe*, 38 = *I.G.*, II<sup>2</sup>, 1586 2
- Κηφισόδοτος Αἰθα(λίδης), lessee, 1 = *Hesperia*, X, pp. 14 ff., 1 56-57, 76; owner of property and workshop, K. *ibid.* 73, 75; father of lessee, [---] K. A [ἰθα:] 15 23
- Κηφισόδωρος Ἀθμο(νέυς), lessee, 9 9; father of Εὐφημίδης, 32a = *I.G.*, II<sup>2</sup>, 1587 17, 19
- Κηφισ[ο]κ[λῆς], father of lessee [---]ης, 13 54
- Κηφισοφῶν Συβρι(δῆς), lessee, 1 = *Hesperia*, X, pp. 14 ff., 1 67
- [Κη]φισοφῶν [...<sup>10</sup>.... Φρ]εάρρι(ος), lessee, 20 16-17
- Κίμων Σοννι(εύς), property owner, 5 19
- Κλε[---], named in text dealing with confiscated property, 16e 1, 2
- Κλεόκριτος Αἰγι(λιεύς), property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 45-46
- Κλεώνυμος Φιλοχάρους Ἀφιδν(αῖος), lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 55-56
- Κολ[---], 4 20
- Κομωνίδης, lessee(?), 18 55
- Κόνων, property owner, 11 8
- Κόνων, owner of workshop, 16a = *I.G.*, II<sup>2</sup>, 1582, 58, 133
- Κόνων Κόνων[ος], registrant, 32a = *I.G.*, II<sup>2</sup>, 1587 14
- Κόνων Α[---], property owner, 13 89
- Κτ[---], property owner(?), 18 57
- Κτησίβιος Με(λιτεύς), father of lessee [---]ς, 16b = *Hesperia*, V, pp. 393 ff., 10 2
- Κτησικ(λ)ῆς Ο[---], 13 115
- Κυδιάδης, father of lessee(?), 20 53; mine operator(?) Κυ[διάδης] 20 56
- Λεύκιος Θεοκλέους Σουνιεύς, property owner Λ. Σ. 1 = *Hesperia*, X, pp. 14 ff., 1 46, 80, Λ. Σ[οννι] 5 5; lessee, [Λ. Θεο]κλέους Σ. 16a + b = Face A col. II 70, [Λεύκι]ος Θεοκ[λέου]ς Σ. 20 5-6
- [Λ]εωσθένη[ς], poletes(?), 24 2
- Λεωχάρης Κόπρει(ος), owner of *edaphe* and workshop, [Λεωχά]ρου[ς] K. 14 30, Λεωχ[ά]-ρ[ους] 14 31, [Λ]εωχάρους 14 32
- Λύ[κινος (Συβρίδης)], father of Εὐμηλίδης, 32b = *I.G.*, II<sup>2</sup>, 1588 13, 17
- Λυσανίας Λυσικλέους Κεφα(λήθεν), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 76-7, 82-3; [Λ. Λυσικλέου]ς K. 13 46-7
- Λ[υ]σ[ία]ς (Αἰξωνεύς), father of Φεῖδων, 26 7
- Λυσιθείδης Κικυν(νέυς), owner of *edaphe* (and other property(?)); Λ. K. 19 7, Λ. [Κ.] 19 6, [Λ. Κ.] 20 27; Λυσιθε[ίδου] 6 10, [6 9-10], [Λυσι]θείδου 14 5-6, [Λ.] 5 55; father of owners of *edaphe*, [Λ. π]αίδων K. 29 4, Λ. [π. Κ.] 29 7
- Λυσικλῆς (Κεφαλήθεν), father of Λυσανίας, 16a = *I.G.*, II<sup>2</sup>, 1582 76-7, 82-3; [13 46-7]
- Λυσικλῆς Ζηλάρχου Σνπ(αλήττιος), lessee, 18 37-38
- Λυσικράτης, property owner(?), 8 = *I.G.*, II<sup>2</sup>, 1584 11
- [Λυσικ]ράτης Κικυν(νέυς), property owner, 5 49
- [Λυ]σίμαχος, father of a poletes(?), 24 3
- Λύσιπ[πος] (Παιανιεύς), father of Φανόθεος, 18 60
- Λυσίστρατος (Φιλαΐδης), father of registrant and lessee Α[... ]ς, 19 9, [13]
- Λυσ[ί]στρατο[ς], 22 8
- Μαντίας Θεορίκιος, lessee, [Demosthenes] XL, 52; see commentary on 2 11-12
- Μαντίθεος Μαντίου Θεορίκιος, lessee, [Demos-thenes] XL, 52; see commentary on 2 11-12

- Μεγακ[---], 16b = *Hesperia*, V, pp. 393 ff., 10 213
- Μειδίας Ἀνα(γυράσιος), property owner, 16a = *I.G.*, II<sup>2</sup>, 1582 44, 82; lessee, M. 15 76
- Μειξιάδης Σουν(ιεύς), property owner, 16a = *I.G.*, II<sup>2</sup>, 1582 127
- Μέναι[χ]μ[ος], property owner, 16a = *I.G.*, II<sup>2</sup>, 1582 150
- Μενέξενος Μεταξένου Δεκε(λεεύς), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 69-70, 75
- Μετάρξενος (Δεκελεεύς), father of Μενέξενος
- Μνησιδάμας Ἀριστοδάμαντος Μυρ(ρινούσιος), registrant and lessee, [Μνησιδάμ]as Ἀ. [Μ.] 16b = *Hesperia*, V, pp. 393 ff. 10 3-4, [Μ. Ἀ.] M. *ibid.* 10; owner of *edaphē* [Μν]ησιδάμαντος [Μ.] *ibid.* 7, [Μνησιδάμαντ]ος M. *ibid.* 9
- Μνησίθεος (Σφήττιος), father of Εὐθύδικος, 10 = *I.G.*, II<sup>2</sup>, 1585 5, 18 20
- Μνησικλῆς Κολλυτεύς, owner of workshop, Demosthenes XXXVII, *passim*
- Μνησίλοχος Σουνι(εύς), registrant, 4 11
- Μνησίστρατος (Ἀχαρνεύς), father of Διότιμος, 5 72
- Μοιροκλῆς, defendant in suit brought by Euboulos on charge of extortion of 20 drachmas from those who worked the mines, Demosthenes XIX, 293; see above note 41
- Μόσ[χος(?)], property owner, 31 6
- N[---], property owner, 6 11
- Να[---], property owner, 15 41
- N[.]ι[...<sup>8</sup>... Ἀ]λω(πεκῆθεν) or [Π]λω(θεύς), owner of *edaphē*, 16a + b = Face A col. II 51
- Ναυσικλῆς, charged with working unregistered mines, Hypereides IV, 34
- Ναυσικλῆς .ΑΑ[---], registrant, 18 13
- Νεοπτόλεμος, owner of *edaphē*, 16a = *I.G.*, II<sup>2</sup>, 1582 122
- Νικανδρίδης Ποτάμ(ος), owner of house, 18 24
- [Ν]ικῆρ[ατος], property owner, 15 15
- Νική[ρατος], owner of workshop, 16b = *Hesperia*, V, pp. 393 ff., 10 1-2
- Νικήρατος Κυδαντίδης, owner of *edaphē* and unspecified property, 19 24, 26; N. K[υδαντ:] 15 46
- Νικί[ας], owner of workshop, 8 = *I.G.*, II<sup>2</sup>, 1584 5
- Νικίας Θο[ρίκ(ιος)], owner of *edaphē*, 9 12, [N.] 20 49
- Νικίας Κυδαν(τίδης), property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 41-42, 58, 64-65
- Νικίας Νικηράτου Κυδαντίδης, owner of 1,000 slaves in the mines, Xenophon *de vect.* iv, 4 (= Νικίας (I) *P.A.* 10808)
- Νικόβουλος, part owner of workshop, Demosthenes XXXVII, *passim*
- [Νικόδημος], archon, 314/13, 34 14-15
- [Νι]κόδημος (Ἀ[θμονεύς]), father of registrant, 9 3
- No[---], property owner, 2 2
- Ξενοκλῆς, father of lessee [---] οφῶν, 14 9
- Ξενοκλῆς Κόπρειος, claimant of workshop, Isaeus III 22
- Ξερόστρατος, owner of workshop, 20 46
- Ὀλύμπιχος (Μελιτεύς), father of Θεόδωρος, 16a = *I.G.*, II<sup>2</sup>, 1582 100, 106, 5 80
- Ὀνήτωρ Ἀρκεσίλων Μελ(ιτεύς), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 63, 69
- Ὀψιάδης ([ἐξ Οἴου]), father of Ἀριστοτέλης, 16a = *I.G.*, II<sup>2</sup>, 1582 [85], 92
- Πανταίνετος, owner of workshop and lessee, Demosthenes XXXVII, *passim*
- Παυ[---], property owner, 19 20
- Πανσίστρατο[ς Φιλιστίδου Αἰξω(νεύς)], lessee, 14 15
- Πολύευκτος Σφήττ(ιος), lessee, 9 16
- Πολύζηλος, archon 367/6, 1 = *Hesperia*, X, pp. 14 ff., 1 1
- Πολ(ύ)μηλος Λαμ(π)τρέύς, lessee, *I.G.*, II<sup>2</sup>, 2638
- Πολύμνηστος Θ[ε]ο[---], lessee, 5 46-47
- Πολύξε[νος], owner of workshop, 4 9
- Προκλ[ῆς], property owner, 3 3-4
- Πρω[---], owner of *edaphē*, 13 23
- Πυθόδοτος, lessee, *Ath. Mitt.* LXII, 1937, p. 12, No. 13
- Πύρρακος Αἰγι(λιεύς), property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 80 [Π. Α.] 5 5
- Πρώ[τ]αρχο[ς], named in text dealing with confiscated property, 16f 2
- Σημωνίδης Σουνι(εύς), owner of *edaphē*, 16a = *I.G.*, II<sup>2</sup>, 1582 162

- Σίμος Διοδώρου Παιαν(εύς), lessee, [Σ. Διο]δώρου Π. 13 45-46, Σ. Δ. [Π.] 16a + b = Face A col. II 62-63; owner of workshop, Σ. Πα[ιαν:] 12 7, [Σίμ]ον Π. 13 44-45; father of lessee [---] λῆς Σ. [Παι]α[ν:] 5 29
- Σίμυλος Ποτάμος, owner of workshop, Σ. 7 = *I.G.*, II<sup>2</sup>, 1583 25, [Σ. Ποτ]αμί: *ibid.* 26-27
- Σιμώνδης, owner of *edaphe* and workshop, 16a = *I.G.*, II<sup>2</sup>, 1582 90, [Σιμ]ώνδον *ibid.* 88
- Σμίκρος Λαμπτρ(εύς), registrant, 6 8
- Σμίκρος, defendant in mining case, Deinarchos LXXVIII, = *P.A.*, 12798
- Σμίκυθος Θορίκ(ιος), property owner, 9 13, 20 50
- Σμίκυθος [Π]α[ιαν]ιεύς, holder of mortgage on workshop and slaves, *I.G.*, II<sup>2</sup>, 2748
- Σμίκυλο[s], named in text dealing with confiscated property, 16e 13
- [Σ]οννιάδης, owner of *edaphe*, 19 20
- Σπεύσιππος, property owner, 18 26
- Στησιλίδης Σίφνιος (?), owner of workshop and property, [Στη]σιλίδου 20 4, [Στησιλ]ηίδου 20 4-5, [Σ. Σ]ιφνί: 25 29
- [Στ]ρατοκλῆς, owner of *edaphe*, 16a = *I.G.*, II<sup>2</sup>, 1582 114-115
- Στρατοκλῆς Ἰσάνδρον [Συπαλή(ττιος)], lessee, 18 17-18; father of [Ἰσαν]δρος (Σ.) 16a = *I.G.*, II<sup>2</sup>, 1582 92, 98
- Σφε[---], 16b = *Hesperia*, V, pp. 393 ff., 10 206
- Σωσίας Θράξ, hired slaves from Nikias to work in the mines, Xenophon *de vect.* iv, 14
- Σωσιγένης, archon 342/1, 19 5, [Σω]σιγένης 19 14
- Σωσ[ισ]τρατί[δης] (Ἀχαρνεύς), father of Ἡρακλείδ[ης], 38 = *I.G.*, II<sup>2</sup>, 1586 15
- Σώστρατος (Ἀμφιτροπῆθεν), father of lessee [---]κλῆς, 18 27
- Τείσανδ[ρος], owner of *edaphe*, 9 19
- Τείσις Ἀγρὺλῆθεν, brought charges against Φίλιππος and Ναυσικλῆς of working unregistered mines, Hypereides IV, 34; see commentary on 18 65-70
- Τελέσαρχος Αἰζώ(νεύς), lessee, 1 = *Hesperia*, X, pp. 14 ff., 1 50; [Τελέσαρ]χος A. 3 12
- Τελεσικλῆς Καλλίου Ἀραφ[ήνιος], lessee, 32a = *I.G.*, II<sup>2</sup>, 1587 8
- Τελέσων Σουνι(εύς), property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 69, 70, [T.] 20 11
- Τηλέμαχος, owner of workshop, Demosthenes XXXVII, 4
- Τησ[---], owner of *edaphe*, 32b = *I.G.*, II<sup>2</sup>, 1588 16
- Τησαγόρας, 18 31
- Τιμήσιος, property owner, 1 = *Hesperia*, X, pp. 14 ff., 1 57
- Τιμήσι[ος Σ]ουνι(εύς), owner of *edaphe*, 14 11
- Τιμοκλείδης Ὑψηχίδου Φρεά(ρριος), registrant and lessee, 16a = *I.G.*, II<sup>2</sup>, 1582 118, 122-3
- Τιμοκλῆς, lessee, 23 1
- Τιμοκλῆς Φανοκ[...<sup>8</sup>...]ρα: registrant, 16a = *I.G.*, II<sup>2</sup>, 1582 135
- Τιμοκράτης Κυδα(θηναίεύς or Κυδα(ντίδης), lessee, *I.G.*, II<sup>2</sup>, 2634
- Τίμων, owner of *edaphe*, 5 17
- Ὑπερείδης[ς Γλανκίππου Κολλυτ(εύς)], lessee, 10 = *I.G.*, II<sup>2</sup>, 1585 12-13
- Ὑψηχίδης (Φρεάρριος), father of Τιμοκλείδης, 16a = *I.G.*, II<sup>2</sup>, 1582 118, 123
- Φ[---], father of registrant [---]ίθεος, 15 77
- Φα[---], 13 116
- Φαι[---], mine operator, 13 75
- Φαι[---], property owner(?), 25 22
- Φαῖδρ[ος], 13 94
- [Φαῖ]δρος Καλλίου [Σφήττ(ιος)], registrant, 16a = *I.G.*, II<sup>2</sup>, 1582 180-181; see commentary on 13 94
- [Φανίας] (Σουνιεύς), father of Θουτιμ[ίδης], 20 12
- Φανόθεος Λυσ[ί]π[που Παιανιεύς], registrant and lessee, 18 60, [64]
- Φανοκ[---], father of Τιμοκλῆς, 16a = *I.G.*, II<sup>2</sup>, 1582 135
- Φανόστρατος Γαρ(γῆττιος), registrant and owner of workshop, 16a = *I.G.*, II<sup>2</sup>, 1582 45, 49; owner of *edaphe* [Φανο]στράτου Γ. 20 27; father of registrant [Φαν]οστράτο Γ. 5 20-21; see commentary on 10
- Φάβλλος (Πιθεύς), father of Φείδιππος, [13 103], 15 42, [18 70], 20 25
- Φείδιππος Φαῦλλου Πιθεύς, registrant and lessee, Φ. Π. 1 = *Hesperia*, X, pp. 14 ff., 1 46-47, 81; [Φ]είδιπ[ος Φ. Π.] 13 102-3; [Φείδι]ππος Φ. Π.



- 15 42; Φ. [Φ. Π.] 18 70; Φ. Φ. [Π.] 20 25.  
 Owner of workshop, Φ[ε]ι[δίππου] 18 72;  
 Φε[ιδ]ίππου [Π]ιθε: 19 8. Owner of *edaphē*  
 and unspecified property, Φ[ειδίππου Π.] 15  
 44; [Φείδιπ]πος Π. 15 45; [Φ]είδιππος Π. 16a =  
*I.G.*, II<sup>2</sup>, 1582 43; [Φ]είδιππος Π[ιθε:] 20 28.  
 Father of [Δίφι]λος, 13 64. See commentary  
 on 13 64
- Φείδων Δ[υ]σ[ί]ο[υ] Αἰξω(νέως), registrant, 26 7;  
 holder of mortgage on workshop and slaves,  
 Φ. Α. *I.G.*, II<sup>2</sup>, 2747
- Φερεκλῆς Θημακέως, owner of *edaphē*, [Φερ]εκλέ-  
 ους Θ. 19 16; father of Διόδωρος, 19 13, 18
- Φι[---], property owner(?), 18 25
- Φιλ[---], property owner(?), 19 21
- Φιλ[---], father of Εὐφράνωρ, 5 20
- Φιλημωνίδης, owner of slaves used in mines,  
 Xenophon *de vect.* iv, 15
- Φιλίνος, owner of workshop and property, 14 2,  
 16a = *I.G.*, II<sup>2</sup>, 1582 47, 50
- Φιλίνος Σουιν(εύς), lessee, 1 = *Hesperia*, X, pp.  
 14 ff., 1 60; father of Ἀμεινίας, [5 43-44]
- Φίλιππος, charged with working unregistered  
 mines, Hypereides IV, 34
- [Φιλιστίδης (Αἰξωνεύς)], father of Πανσίστρατος,  
 14 15
- Φιλίων, owner of workshop, 16a = *I.G.*, II<sup>2</sup>,  
 1582 95-96, (new reading from the stone)
- Φιλοκλή[ς], lessee, 4 5
- [Φι]λοκλῆς, property owner, 15 11
- Φιλοκράτης Εὐω[νυμ(εύς)], owner of workshop  
 and unspecified property, 5 78, [Φιλοκρ]ά[τ]ης  
 Ε. 18 21; see commentary on 12 4
- Φιλοκύδης (Ἀχαρνεύς), father of Ἐπικύδης, 32b  
 = *I.G.*, II<sup>2</sup>, 1588 3, 4, 8
- Φιλόφρων Πειρ(αιεύς), property owner, 18 69
- Φιλοχάρης (Ἀφιδναῖος), father of Κλεώνυμος, 16a  
 = *I.G.*, II<sup>2</sup>, 1582 55-56
- Φρε[---], owner of *edaphē*, 29 13
- Χαιρ[.....<sup>17</sup>.....]εύς, registrant and  
 mine operator, 10 = *I.G.*, II<sup>2</sup>, 1585 6-7, 11-  
 12; see commentary on 5 68
- Χαιρέας Αἰσχ[---], registrant, 5 68
- Χαιρέδημος Ἀγνού(σιος), lessee, 1 = *Hesperia*,  
 X, pp. 14 ff., 1 83
- Χαρ[---], property owner(?), 12 6
- Χαρ[---], registrant, 20 20
- Χάρης (Θορίκιος), father of lessee, 20 47
- [Χ]αριμήδης (Μαραθώνιος), father of lessee  
 [...]ιλο[ς], 19 3
- Χαρίνος, property owner, 16c = *Hesperia*, V,  
 pp. 393 ff., 10 302
- Χάρμυλος, husband and father of property  
 owners, 1 = *Hesperia*, X, pp. 14 ff., 1 45, 68,  
 79, [Χ]αρμύλο πα[ίδων] 5 4-5
- Ὠνησο[---], father of [---]σιάδης, 5 26
- [...]ιλο[ς Χ]αριμήδου Μ[αρ]αθ(ώνιος), lessee,  
 19 3
- [. . .<sup>4</sup>. . .]μων, property owner, 5 51
- [. . .<sup>5</sup>. . .]ς Κτησιβίο Με[λιτ:], lessee, 16b = *Hes-*  
*peria*, V, pp. 393 ff., 10 2-3
- [. . .<sup>5</sup>. . .]ίων, mine operator, 20 10
- [. . .<sup>7</sup>. . .]ης Σουιν(εύς), father of Εὐπόλεμος,  
 16a = *I.G.*, II<sup>2</sup>, 1582 134
- [. . .<sup>7</sup>. . .]ντος, owner of workshop, 18 16
- [. . .<sup>8</sup>. . .] Α[. . .<sup>7</sup>. . .]ς Ἐλευ(σίσιος), lessee, 16  
 a + b = Face A col. II 55
- [. . .<sup>9</sup>. . .]ης Φρεάρρ(ιος), owner of *edaphē*,  
 13 18
- [<sup>ca.</sup>9]ώρο Πόρι(ος), registrant and lessee, 5 73,  
 [. . .<sup>9</sup>. . .]ών Π. 18 22
- [<sup>ca.</sup>10]ης Ἀμφιτροπα[ιεύς], owner of *edaphē*, 7  
 = *I.G.*, II<sup>2</sup>, 1583 24
- [. . .<sup>11</sup>. . .]ης Γαργήτι(ος), owner of *edaphē*,  
 20 21-22
- [. . .<sup>12</sup>. . .]λον Εἰτε(αῖος), registrant and  
 lessee, 16a = *I.G.*, II<sup>2</sup>, 1582, 106-7, 112
- [. . .<sup>12</sup>. . .]νος Παῖ[ανι(εύς)], lessee, 16a +  
 b = Face A col. II 74
- [. . .<sup>13</sup>. . .]οίνου Α[---], owner of  
*edaphē*, 15 50
- [. . .<sup>14</sup>. . .]ίππου Ἀφιδναῖ(ος), lessee, 5  
 11
- [. . .<sup>14</sup>. . .]λο[υ .]λω[---], registrant  
 (?), 13 7
- [. . .<sup>15</sup>. . .]του Θυμαϊτά(δης), lessee, 14 3
- [. . .<sup>16</sup>. . .]ου Ἀλα[ιεύς], registrant and  
 lessee, 19 3-4, 8-9
- [. . .<sup>16</sup>. . .]χου Σφήττιος, lessee, 10 =  
*I.G.*, II<sup>2</sup>, 1585 6

- [---] ἀδους ἐξ Οὔου, lessee, 19 37  
 [---] ἀνὴς Ἐρχι(εύς), property owner, 13 24  
 [---] ας Θεορίκ(ιος), lessee, 2 12  
 [---] ἀτους Ὁῆθεν, lessee, 5 87  
 [---] δης, owner of furnace (?), 13 57  
 [---] δης Θεοτίμου ἐξ [Οῖ[ο], registrant, 5 47  
 [---] εα. . . του [Κ]ολ[λυτ(εύς)], lessee, 25 25  
 [---] ἐνον, property owner (?), 20 36  
 [---] ης Δημο[---], 11 3  
 [---] ης Δικαιοκρά[τους], lessee, 10 = *I.G.*, II<sup>2</sup>, 1585 14  
 [---] ης Κηφισ[ο]κ[λέους], lessee, 13 54  
 [---] ης Σφ[ήπτ(ιος)], property owner(?), 13 158  
 [---] θένης Α, 20 57  
 [---] ἰθεος Φ[---], registrant, 15 77  
 [---] ἐλιάδης, 16a = *I.G.*, II<sup>2</sup>, 1582 174  
 [---] ἴτος, property owner (?), 18 32  
 [---] κλη[ς], 5 60  
 [---] κλῆς Ἀμφι[τροπ(ῆθεν)], 36 1  
 [---] κ[λ]ῆς Σωστράτου Ἀμφιτρο[π(ῆθεν)], lessee, 18 27  
 [---] κριτος Σου[νι(εύς)], registrant (?), 2 9  
 [---] λῆς Ἀ[λ]αιε(ύς), registrant, 18 33  
 [---] λῆς Ο<ι>ῆθεν(εν), property owner, 19 21  
 [---] λῆς Σίμο [Παι]α[νι(εύς)], lessee, 5 29-30  
 [---] μαχος, 5 67  
 [---] μοκράτο[υς], 15 70  
 [---] οκλέους ἐκ Κολ(ωνοῦ), lessee, 18 8  
 [---] οκλείδου Σουνι(εύς), registrant or lessee, 35 4  
 [---] ος Κ[α]λλα[---], 15 16  
 [---] ος Κυδιάδου, registrant (?), 20 53  
 [---] ο[ς] Ἀναφλ(ύστιος), mine operator, 22 10  
 [---] ος Λουσιεύς, registrant, 9 10  
 [---] ος Σουνι(εύς), property owner(?), 14 25  
 [---] ο[υ] Ἀνα[---], lessee, 11 10  
 [---] ο[υ] Ἀχαρν(εύς), lessee (?), 15 6  
 [---] ο[υ] Εὐων(μεύς), registrant, 13 86  
 [---] ο[υ] Φηγα(ιεύς), lessee, 16b = *Hesperia*, V, pp. 393 ff. 10 299  
 [---] οφῶν, son of Ξενοκλῆς, lessee, 14 9  
 [---] πετιος, owner of *edaphe*(?), 16a + b = Face A col. II 58  
 [---] ράτης Φαληρε(ύς), owner of workshop, 18 30  
 [---] ράτο[υ], 18 50  
 [---] ρης Ἀπολλωνί[ου(?)], 3 11  
 [---] ρίας Αἰσ[---], lessee or registrant, 15 32  
 [---] ρος Παιανι(εύς), property owner, 15 20  
 [---] ς Κηφισοδότου Α[ἰθα(λίδης)], lessee, 15 23  
 [---] ς Ἀμφιτροπα(ιεύς), owner of *edaphe*, 7 = *I.G.*, II<sup>2</sup>, 1583 24  
 [---] ς Ἀμφιτροπῆθ(εν), registrant, 9 17  
 [---] ς Ἀχαρ(νεύς), 21 29  
 [---] ς Ἐλενσί(νιος), property owner, 20 23  
 [---] ς Ἐρχ[ι(εύς)], lessee, 5 68  
 [---] ς Εὐω[νυμεύς], 2 20  
 [---] ς Μυρρι(νούσιος), lessee (?), 20 30  
 [---] ς Περγασῆθεν, registrant, 28 8  
 [---] ς Σίφν[ι(ος)], registrant, 5 2  
 [---] ς Σίφνι(ος), property owner(?), 15 10  
 [---] ς Σφήττι(ος), property owner, 15 40  
 [---] σιάδης Ὠνησο[---], 5 26  
 [---] σ[ος], property owner, 4 14  
 [---] στρα[τ]ου Α[---], 13 5  
 [---] στράτου Γαργ[ήπτιος], registrant, 10 = *I.G.*, II<sup>2</sup>, 1585 15  
 [---] υ. . . ου Παλλ[ην(εύς)], registrant(?), 12 8  
 [---] φιλος, property owner(?), 10 = *I.G.*, 1585 2  
 [---] χίων Σο[νι(εύς)], 36 4-5  
 [---] χύλο, 3 13  
 [---] ων, property owner, 33 1

## NAMES OF MINES

Names found on markers (boundary stones), and those mentioned as the boundary of another mine are indicated as such. In all other cases the reference is to a mine which was being leased. Restorations are only indicated when the identification of name or place is largely dependent on them.

Ἀγνοσιακόν, 1 = *Hesperia*, X, pp. 14 ff., 1 50

Ἀθηναϊκόν, 5 83; 14 29

Ἀ. καὶ συντομὰς Ἀμφιτροπῆσι, 32a = *I.G.*, II<sup>2</sup>, 1587 14-15

Ἀ. [Βήση]σιν, 5 74

Α[ἰ]γυλιακὸν Βήσησι, 18 4

Ἀπολλωνιακὸν Ἀναφλυστοῖ, 16a = *I.G.*, II<sup>2</sup>, 1582

- 'Α. [εν τῷ λόφῳ τῷ] Βαβιδείῳ[ι], 2 13  
 'Α. Βήσησιν 5 69-70; 'Α. [Β.] 10 = *I.G.*, II<sup>2</sup>, 1585 16  
 'Α. ἐν Θρ[ασύμῳ(?)], 37 2  
 'Αρτεμισιακόν, 1 = *Hesperia*, X, pp. 14 ff., 1 51; 4 3; 16a = *I.G.*, II<sup>2</sup>, 1582 124; 20 2, 20, 26; 34 4-5  
 'Α. 'Αναφλυστοῖ, 16a = *I.G.*, II<sup>2</sup>, 1582 114  
 'Α. Θαλιν[οῖ] ἐν [Νάπ]ηι, 20 8  
 'Α. Θορικοῖ, 6 9; 18 71; 19 5; 32a = *I.G.*, II<sup>2</sup>, 1587 17; 'Α. [Θ.] 29 3; μέταλλον καὶ ἐπικατατομήν 'Α. Θ. 16a = *I.G.*, II<sup>2</sup>, 1582 137 (see above commentary on 1b and on 9 4-6)  
 'Α. ἐπὶ Θρασύμῳ, 16a = *I.G.*, II<sup>2</sup>, 1582 143, 175-7; 'Α. [ἐπὶ Θρασύμῳ], 13 137  
 'Α. ἐπὶ Σουνίῳ, 13 66  
 'Α. named as boundary of another mine, 10 = *I.G.*, II<sup>2</sup>, 1585 4; 16a = *I.G.*, II<sup>2</sup>, 1582, 38-9, 120; 20 9; 32b = *I.G.*, II<sup>2</sup>, 1588 7, 11  
 'Α. named on marker (boundary stone), *I.G.*, II<sup>2</sup>, 2634; *Ath. Mitt.*, LXII, 1937, p. 11, number 12.  
 'Αρχηγέτειον, 'Α. Θορικοῖ, 1 = *Hesperia*, X, 1941, pp. 14 ff. 1 65-66  
 'Α. καὶ τὰς κατατομὰς Βήσησιν, *ibid.* 72  
 'Α. named as boundary of a mine; *ibid.* 75-76  
 'Ασο [...<sup>6</sup>...]ο[ν ἐ]ν Μαρ[ωνείαι], 19 23  
 'Αφροδισιακόν, 8 = *I.G.*, II<sup>2</sup>, 1584 2  
 'Α. [Βήσησι], 5 44; 'Α. [Βήσησιν], 18 34-35  
 'Α. ἐπὶ Θρασύμῳ, 32a = *I.G.*, II<sup>2</sup>, 1587 5-6  
 'Α. ἐπὶ [...<sup>8</sup>...], 26 3  
 'Α. named as boundary of a mine, 8 = *I.G.*, II<sup>2</sup>, 1584 12; 19 34  
 Δεξιακόν ἐν Νάπει, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 40-41  
 Δημητριάκον, 34 15  
 Δ. [Ἀμφιτροπήσιν], 16c = *Hesperia*, V, 1936, pp. 393 ff., 10 300-301; 16a = *I.G.*, II<sup>2</sup>, 1582 94  
 Δ. ἐν Νάπηι, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 57  
 Δ. Θορικοῖ, 32a = *I.G.*, II<sup>2</sup>, 1587, 9  
 Δ. named as boundary of a mine, 32a = *I.G.*, II<sup>2</sup>, 1587 3  
 Διακόν ἐπὶ Λαυρέῳ, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 42  
 Διονυσιακόν, 8 = *I.G.*, II<sup>2</sup>, 1584 10; 16a + b = Face A col. II 57  
 Δ. named as boundary of a mine, 13 10; 16a = *I.G.*, II<sup>2</sup>, 1582 81  
 Διοσκουρικόν Ἀμφιτροπήσιν, 16a = *I.G.*, II<sup>2</sup>, 1582 87  
 Διφίλειον, 32a = *I.G.*, II<sup>2</sup>, 1587 11, see commentary on 18 18  
 Ἐρμαικόν, 9 18; 19 28; 29 12; 32b = *I.G.*, II<sup>2</sup>, 1588 4-5  
 Ἐ. Θ[ορικοῖ], 22 13  
 Ἐ. ἐπὶ Θ[ρασύμῳ], 16a + b = Face A Col. II 64-65  
 Ἐ. ἐπὶ Λαυρέῳ, 16a = *I.G.*, II<sup>2</sup>, 1582, 64, 78  
 Ἐ. ἐμ Μαρωνείαι, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 59  
 Ἐ. [ἐμ Φιλομηλ]ιδῶν, 20 39  
 Ἐ. named as boundary of a mine, 6 1  
 Εὐδότειον ἐπὶ Λαυρέῳ, 16a = *I.G.*, II<sup>2</sup>, 1582 52  
 Εὐδώτειον, 21 19  
 Ε. named as boundary of a mine, 7 = *I.G.*, II<sup>2</sup>, 1583 21  
 Εὐτέλειον, on marker of a mine, *Ath. Mitt.*, LXII, 1937, p. 11 No. 11  
 Ἑραικόν Θορικοῖ, 20 18 (cf. Ἑρωικόν below)  
 Ἑρωικόν: Ἑρ[ωικόν] 5 22, Ἑρ[ωι]κόν 14 10  
 Ἑ. Ἀναφλυστοῖ, 16a = *I.G.*, II<sup>2</sup>, 1582, 109  
 Ἑ. ἐν τῷ λόφῳ τῷ Βαμβιδέῳ, 16a = *I.G.*, II<sup>2</sup>, 1582, 57  
 Ἑ. named as boundary of a mine, 16a = *I.G.*, II<sup>2</sup>, 1582, 59, 121  
 [Ἑφαι]στιακ[όν], named as boundary of a mine, 8 = *I.G.*, II<sup>2</sup>, 1584, 14, see above note 4, page 190.  
 Θεο[---], 5 16  
 Θεογνίδειον ἐπὶ Λαυρέῳ, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 61  
 Θεοδόσιον Ἀ[μφιτροπήσιν], 18 66  
 Κ[---] ἐπὶ Σο[υνίῳ], 5 7-8  
 Κ[---], 5 37  
 Καλλαίσειον, on marker of a mine, W. Peek, *Attische Inschriften*, p. 46, No. 35. (an unpublished article designed for the *Ath. Mitt.*)



Κεραμεικόν, 4 2

K. ἐπὶ Σουνίῳ ἐπὶ Θρασύμῳ, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 77-78

Κι[θα]ιρωνιακόν [Βήσησι]ν, 18 29

Κτησιακόν Βήσησιν, 10 = *I.G.*, II<sup>2</sup>, 1585, 8

Λαβιακόν Θορικοῖ, 19 15-16

[Λ]άχειον, epithet of Δημητριακόν 34 14

Λευκίππειον ἐπὶ Σουνίῳ Βήσησι, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 82

Λ. [Β]ήσ<η>σι 32b = *I.G.*, II<sup>2</sup>, 1588 13-14

Νυμφαϊκόν: Ν[υ]μφαϊκ[όν], 38 = *I.G.*, II<sup>2</sup>, 1586, 7

N. [Μαρωνεῖαι], 5 53-54, 14 4

ἄνω Ν. ἐπὶ Σουνίῳ, 4 7

Πλον[τωνιακόν], 16a + b = Face A. col. II 60-61

Ποσειδωνιακόν, 5 3-4

Π. Ἀναφλυστοῖ, 16a = *I.G.*, II<sup>2</sup>, 1582 119-20

Π. Θορικοῖ καὶ κατατομὴν ἐμ Φιλομηλιδῶν, 16a = *I.G.*, II<sup>2</sup>, 1582, 70-71

Π. ἐμ Μαρ[ωνεῖαι], 2 16-17

Π. ἐν Νάπηι, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 47

Π. ἐπὶ Σουνίῳ, 32b = *I.G.*, II<sup>2</sup>, 1588 9-10

Προσ[...<sup>8</sup>...] ἐπὶ Θρασύμῳ, 16a = *I.G.*, II<sup>2</sup>, 1582 161

Προσπαλτιακόν, named on marker of a mine, *I.G.*, II<sup>2</sup>, 2635

Πυρρίειον: [Π]υρρίειον 4 4

Π. ἐπὶ Σουνίῳ ἐν Νάπει, 1 = *Hesperia*, X, 1941, pp. 14 ff., 1 63-64

Σημάχειον, 16a = *I.G.*, II<sup>2</sup>, 1582 54, name of mine or of sanctuary, see commentary on 34

Τεισιακόν, named as boundary of a mine, 16a = *I.G.*, II<sup>2</sup>, 1582 59

Φ[...<sup>9</sup>...] Θορικοῖ, 20 13

Φάνειον Ἀναφλυστοῖ, 16a = *I.G.*, II<sup>2</sup>, 1582 130

Φιλημονιακόν, named as boundary of a mine, 16a + b = Face A, Col. II, 65-66; named on marker, *I.G.*, II<sup>2</sup>, 2638

Φρ[---], 13 16

[---] αἰκόν, 12 3

[---] αικόν ἐν! [---], 2 5

[---] αικόν ἐπ[ι---], 24 4

[---] ακόν ἐπὶ Θ[ρασύμῳ], 13 55

[---] ακόν, named as boundary of a mine, 5 76

[---]ειον Βήσησι, 18 14

[---ε]ιον ἐπὶ Σουνίῳ, 3 4

[---] ερίσκειο[ν], 32b = *I.G.*, II<sup>2</sup>, 1588, 2

[---]ιακόν 16a + b = Face A col. II 43, 20 49

[---]ιακόν ἐπὶ Θρασύμῳ, 16a = *I.G.*, II<sup>2</sup>, 1582, 168-169

[---]ικόν ἐν Αὐλ[ῶνι], 2 8

[---]κόν, 13 114, 38 = *I.G.*, II<sup>2</sup>, 1586, 9

[---]μπιακόν, 2 1

[---]νιακ(όν) καὶ ἐπικατατομὴν Θορικοῖ, 6 5

[---]νι[κόν] Μαρωνεῖαι, 19 19

[---]σιακόν, 9 6

[---]τικόν, 18 9

## GEOGRAPHICAL

All place names, including sanctuaries, which appear in the mining texts are listed below. Demotics of persons are not included. For those see the list of names arranged by demes. Minor restorations and variations in abbreviation are not indicated.

Ἀμφιτροπή:

Ἀμφιτροπήσιν (location of mine), 7 = *I.G.*, II<sup>2</sup>, 1583 23; 16a = *I.G.*, II<sup>2</sup>, 1582 86, [94]; 16b = *Hesperia*, V, pp. 393 ff., 10 3, 5, [300]; 18 45, 49, [56]; 61-62; 32a = *I.G.*, II<sup>2</sup>, 1587 14, 15; Ἀ[μφιτροπ:], 18 66; see also commentary on 21 18-22

[Ἀμφιτροπή]θεν (road from), 16a = *I.G.*, II<sup>2</sup>, 1582 90-91, see above commentary on 16

Ἀμφιτροπ(ήθεν) or (ήσιν), 13 79; 18 45-46

Ἀνάφλυστος:

Ἀναφλυστοῖ (location of mine), 15 37; 16a = *I.G.*, II<sup>2</sup>, 1582 [99], 108, 113, 120, 131; [Ἀναφλυσ]τοῖ *ibid.* 101-102

εἰς Ἀνάφλυστον (road or gully to), 8 = *I.G.*, II<sup>2</sup>, 1584 4; 21 15; εἰς [Ἀ.] 7 = *I.G.*, II<sup>2</sup>, 1583 20

Ἀρτεμ[ίσι]ον: τὸ ἐ[ν...<sup>8</sup>...ω]ν, 5 76-77; Βησαίων Ἀ[ρτεμίσιον], 18 35-36

## Αὐλῶν:

- ἐν Αὐλ[ῶνι] (location of mine), 2 8  
 ἐξ Αὐ[λῶνος] (road from), 8 = *I.G.*, II<sup>2</sup>, 1584 7  
 εἰς Αὐλῶνα (road to), 10 = *I.G.*, II<sup>2</sup>, 1585 3;  
 εἰς Α[ὐλῶνα] 5 28; [εἰς Αὐλ]ῶ[να] 16a = *I.G.*, II<sup>2</sup>, 1582, 80-81, see above commentary on 16

Βαμβίδειον (location of mine), ἐν τῷ λόφῳ τῷ Βαμβιδέῳ 16a = *I.G.*, II<sup>2</sup>, 1582 57; [ἐν τ. λ. τ.] Βα(μ)βιδείω[ι] 2 13-14; [ἐν τ. λ. τ.] Βαμβιδεί[ωι] 5 89

## Βῆσα:

- Βήσση(ν) (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 73, 82-83; 5 [44], 69; 10 = *I.G.*, II<sup>2</sup>, 1585 8, [17]; 15 18; 18 4, 14, 19, 23; Β[ήσση] 15 29, 34; [Β]ήσ<η>σι 32b = *I.G.*, II<sup>2</sup>, 1588 13; [Βήσ]ησι 18 6; [Βήσση]σιν 5 74; [Βήσση]σιν 18 34; [Βήσση]σιν 18 29  
 Βήσαζε (road to), 4 24; 7 = *I.G.*, II<sup>2</sup>, 1583 26; 10 = *I.G.*, II<sup>2</sup>, 1585 10; 16a = *I.G.*, II<sup>2</sup>, 1582 91, [97]; 16c = *Hesperia*, V, pp. 393 ff., 10 [302], see above commentary on 16; 18 15, 64 68; 29 6  
 Βησαιῶν: Βησαι(ῶν) (mines of) 5 68; [τὸ 'Ηρ]άκλειον [τ]ὸ Β. 18 12, 'Ηράκλ[ειον τὸ Β.] 18 21-22; Β. 'Α[ρτεμίσιον] 18 35-36

Διονύσιον: εἰς τὸ Δ., 20 15

'Ηράκλειον τὸ Βησαιῶν: ['Ηρ]άκλειον τὸ Β. 18 12, 'Ηράκλ[ειον τὸ Β.] 18 21-22

## Θάλινος (?):

- Θαλινο[ί] (location of mine), 20 6  
 ἐπὶ Θάλ[ινον] (gully to), 16a + b = Face A col. II 54-55  
 [ἐπ]ὶ Θαλ[ιν-], *ibid.* 76-77

## Θορικός:

- Θορικοῖ (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 65; 6 4; 16a = *I.G.*, II<sup>2</sup>, 1582 46, 70-71, 135, 137-138; 18 70; 19 15; 20 13, 18; 29 [3]; 32a = *I.G.*, II<sup>2</sup>, 1587, 9, 17; Θο[ρικοῖ] 2 4, 6 9; Θ[ορικοῖ] 22 13; [Θο]ρι-κ[οῖ] 38 = *I.G.*, II<sup>2</sup>, 1586 16; [Θορ]ικοῖ 19 6; [Θορικ]οῖ 4 15  
 ἐκ Θορικοῦ (road from), 6 [5, 11]; 16a = *I.G.*, II<sup>2</sup>, 1582 48, 67; 19 [17]; 20 [28]; 29 [5, 6]; [ἐκ Θορ]ικοῦ 25 18

εἰς Θορικόν (road to), 20 14; 28 2; εἰς Θ[ορικόν] 20 55

Θορικίων (gully of), 1 = *Hesperia*, X, pp. 14 ff., 1 56

## Θράσυμος:

- ἐπὶ Θρασύμῳ (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 77; 2 9-10; 11 6; 13 [138]; 16a + b = Face A col. II 63, 67-68, 72; 16a = *I.G.*, II<sup>2</sup>, 1582 140-141, 146-147, 153-154, 160, 168, 182; 31 2; 32a = *I.G.*, II<sup>2</sup>, 1587 5; 35 5; ἐπὶ Θρα[σύμῳ] 16a + b = Face A col. II 75, 16a = *I.G.*, II<sup>2</sup>, 1582 177; ἐπὶ Θρ[ασύμῳ] 7 = *I.G.*, II<sup>2</sup>, 1583 5, 25 21; ἐπὶ Θ[ρασύμῳ] 13 55, 16a + b = Face A col. II 64-65; [ἐπὶ Θρασ]ύμῳ 27 3; [ἐπὶ Θρασύ]μῳ 16a = *I.G.*, II<sup>2</sup>, 1582 142-143

ἐν Θρ[ασύμῳ(?) ] (location of mine), 37 2

ἀπὸ Θρασύμου (road from), 5 35; [ἀπὸ Θρα-σ]ύμου 5 33; [ἀπὸ Θρασύ]μον 8 = *I.G.*, II<sup>2</sup>, 1584 4

ἐπὶ Θράσυμον (road to), 6 11; 16a = *I.G.*, II<sup>2</sup>, 1582 63, [104], 111, 116-117, 128, 175; ἐπὶ Θ[ράσυμον] *ibid.* 48-49; [ἐπὶ Θρά]συμον 5 10, 16a + b = Face A col. II 53; [ἐπὶ Θράσ]υμ[ο]ν 25 19

Κερκέων, τὰ Κερκέων ἐδάφη, 16a = *I.G.*, II<sup>2</sup> 1582 [115], 126

## Λαύρειον (Λαύρεον):

ἐπὶ Λαυρείῳ (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 42-43, 52-53, 61; 16a = *I.G.*, II<sup>2</sup>, 1582 52, 63, 64, 78

ἀπὸ Λαυρείου (road from), 16a = *I.G.*, II<sup>2</sup>, 1582 68, [104], 128; 32a = *I.G.*, II<sup>2</sup>, 1587 21, see commentary on 32; [ἀπὸ Λ]αυρείου 15 75; [ἀπὸ Λα]υρείου 13 76; ἀ[πὸ Λαυρ]έου 16a + b = Face A col. II 53; (gully from) ἀ[πὸ Λαυρ]έου *ibid.* 54

ἐπὶ Λαύρειον (road to), 5 50-51; 16a = *I.G.*, II<sup>2</sup>, 1582 53-54, 67; 20 41; 25 [18]; 28 12; 29 5; [ἐπὶ Λα]ύρειον 6 6; [ἐπὶ Λαύ]ρειον 4 27  
 [Λ]άχειον, epithet of mine or name of sanctuary 34 14

Λευκόθιον, ἐπὶ Λευκόθιον (road to), 16a = *I.G.*, II<sup>2</sup>, 1582 134

Μ[---], ἱερὸν Μ[---] 2 7

Μ. Γ α ο[---], ἐμ Μ. Γ α ο[---] (location of mine), 3 2

Μαρωνεία :

Μαρωνείαι (location of mine), 5 [54] ; 14 [4] ; 19 18

ἐν Μαρωνείαι (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 59 ; ἐμ Μαρ[ωνείαι] 2 17 ; [ἐ]ν Μαρ[ωνείαι] 19 23-24

[ἀπὸ Μα(?)]ρωνείον (road from) 14 19 ; 15 [25-26]

Μαρώναζε (road to) Μ[α]ρώναζε 5 33

Νάπη :

ἐν Νάπηι (Νάπει) (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 41, 47, 57, 63, 67, 79 ; ἐν [Νάπ]ηι 20 8

[ἀπὸ] Νάπης (gully from), 20 10

Πάγγαιον : ἐμ Παγγαίῳ (location of mine), 18 6, 7 ; [ἐμ Πα]γγαίῳ 2 17-18

Πάνορμος : εἰς Πάνορμον (road to), 14 20 ; 15 26 ; 16b = *Hesperia*, V, 393 ff., 10 263, see above commentary on 16 ; εἰς [Πάνορμ]ον 19 17

Σημάχειον, name of mine or of sanctuary, 16a = *I.G.*, II<sup>2</sup>, 1582 54

Σίδερτος : ὁ λόφος ὁ Σίδερτος 16a = *I.G.*, II<sup>2</sup>, 1582 74

Σκοπία : ἐπὶ Σκοπιῶι (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 41

Σούνιον :

ἐπὶ Σουνίῳι (location of mine), 1 = *Hesperia*, X, pp. 14 ff., 1 44-45, 63, 77, 79, 82 ; 2 4-5 ; 3 4 ; 4 7 ; 13 65 ; 14 17 ; 16a = *I.G.*, II<sup>2</sup>, 1582 41 ; 16b = *Hesperia*, V, pp. 393 ff., 10 219 ; 32b = *I.G.*, II<sup>2</sup>, 1588 9, 18 ; ἐπὶ Σο[υνίῳι] 5 6-7 ; [ἐπὶ Σουνί]ῳι 13 87

ἐπὶ Σού[νιον] (road to), 5 35-36 ; 19 [26]

Υποτραγῶν : ἐξ Υποτραγῶνος (road from), 16a = *I.G.*, II<sup>2</sup>, 1582 53, see commentary on 16

Φιλομηλιδῶν : ἐμ Φιλομηλιδῶν (location of mine), 16a = *I.G.*, II<sup>2</sup>, 1582 71 ; 20 44 ; [ἐμ Φιλομηλ]ιδῶν 20 40

[---]αρδαμηττός : [---α]ρδαμηττός 20 45 ; [---]αρδαμητ[τός] 36 2-3

## SIGNIFICANT WORDS

ἄγω : ἄγουσα, [9 14], 20 51

ἄκρ[όπολις], 5 42-43 ; ἄκροπόλει, 14 41

ἀλίσκομαι : ἀλόντος, 13 129-130

ἀμαξικός : ἀμαξική, 1 = *Hesperia*, X, pp. 14 ff., 1 55-56

ἀνασάξιμον, *passim*, see chart ; ἀνασάξιμα, 32a = *I.G.*, II<sup>2</sup>, 1587 13

ἄνειμι : ἀνιόντος (variously abbreviated), *passim*

ἄντρον, 19 19

ἀξία, [16f 4]

ἀπογράφω : ἀπέγραψεν, 14 47, [16d 5], [16e 7] ; ἀπεγράψατο, *passim*, see chart ; ἀπεγράψαντο, 16a = *I.G.*, II<sup>2</sup>, 1582 60

ἀποδίδωμι : ἀπέδοντο, 1 = *Hesperia*, X, pp. 14 ff., 1 6, 34 2 ; ἀπέδωκεν, 16e 3

ἀργέω : ἡργηκός, 5 84

ἄρχων : ἄρχοντος, 1 = *Hesperia*, X, pp. 14 ff., 1 1, 13 [3, 7, 30, 131], 16a = *I.G.*, II<sup>2</sup>, 1582 76, 79, [83-84], 19 5, [10], 14, [24 1], [34 1], [37 4] ; ἄρχο : 16a = *I.G.*, II<sup>2</sup>, 1582 62-63, 18 [20, 61], 67

ἀστικός : ἀστική, 4 24, 16a = *I.G.*, II<sup>2</sup>, 1582 116

ἀτραπός, 9 14, [20 50]

βορράθεν (variously abbreviated), *passim*

γείτων (variously abbreviated), *passim*

γυνή : γυναικός, 1 = *Hesperia*, X, pp. 14 ff., 1 68, 69

δημιόπρατος : δημιόπρατα, [24 1]

δημόσιος : δημοσίῳι, 7 = *I.G.*, II<sup>2</sup>, 1583 [39], 14 40, 16f 5-6

δικα[στήριον], 14 45-46, [16d 3]

δοκέω : ἔδοξεν, 7 = *I.G.*, II<sup>2</sup>, 1583 [40], 17 3

δραχμή : δραχμάς, 16f 5

δύω : δυομένου (variously abbreviated), *passim*

ἔδαφος : ἐδάφη, 6 [6], 10, 9 7, 16a = *I.G.*, II<sup>2</sup>, 1582 [115-116], [121-122], 126, 16b = *Hesperia*, V, pp. 393 ff., 10 [7-8], 8, 9, 18 [57], 63, [21 22], 25 23, 28 11, [29 7], 32b = *I.G.*, II<sup>2</sup>, 1588 15, 16 ; ἐδάφεσιν, *passim*

εἰσφέρω : εἰσήνεγκε, 16a = *I.G.*, II<sup>2</sup>, 1582 77, [84], 18 18-19, 19 4, [15], 37 3, see commentary on 13 8

ἐκγράφω : ἐκγεγραμμένον, 14 40



ἐνεπίσκημμα, 7 = *I.G.*, II<sup>2</sup>, 1583 40, [17 3-4]

ἐνεπισκήπτομαι: [ἐνεπισκ]ήψατο, 17 4-5

ἐνοφείλω: ἐνοφείλεσθαι, 16e 5-6, [17 6-7]

ἐξαγωγή, 28 4

ἐξούλη: ἐξούλας, 16e 4

ἐπικατομή: ἐπικατομήν, 6 5, 14; 16a = *I.G.*, II<sup>2</sup>, 1582 137, 16a + b = Face A col. II [50-51]

ἐργάζομαι: ἐργάζεται, 4 25, [20 9, 24, 56], 28 6; ἡργάζετο, 10 = *I.G.*, II<sup>2</sup>, 1585 [4], 11, 13 27-28, [51, 75], 18 7, [53-54], 22 10, 32a = *I.G.*, II<sup>2</sup>, 1587 8, 38 = *I.G.*, II<sup>2</sup>, 1586 4; ἡργάσατο, 4 8, [13 20], 16a = *I.G.*, II<sup>2</sup>, 1582 98; εἰργαζόμενον, 16a = *I.G.*, II<sup>2</sup>, 1582 79

ἐργάσιμος: ἐργάσιμον (variously abbreviated), 13 [4], 8, 16a = *I.G.*, II<sup>2</sup>, 1582 64, 77, 18 19, 60-61, 65-66, 19 4, [11, 15], 20 7, [37 4]; ἐργάσιμα, 16a = *I.G.*, II<sup>2</sup>, 1582 60-61, 34 12

ἐργαστήριον: 1 = *Hesperia*, X, pp. 14 ff., 1 55, 75; 4 9, 10, 12; 5 28, [34, 57], 70-71, 72, 78, 79, [86], 98; 7 = *I.G.*, II<sup>2</sup>, 1583 [25], 27; 8 = *I.G.*, II<sup>2</sup>, 1584 5, 6; 9 15; 12 7; 13 [25, 43, 45, 52, 53], 112; 14 2, [7], 12, 13, 20, [21], 26, 27, [31]; 15 17, [22, 35, 74]; 16a + b = Face A col. II [5, 52], 66, [70, 74]; 16a = *I.G.*, II<sup>2</sup>, 1582 49-50, 55, 58, 65-66, 73, [82, 89-90], 96, [96-97], 103, 126-127, 132, 133, 157-158, 162-163, 178, 179-180, 184; 16b = *Hesperia*, V, pp. 393 ff., 10 [2]; 18 [2], 11, 16, 30-31, [35, 72]; 19 8; 20 4, [10], 12, [45, 45-46]; 21 27-28; 24 7; 25 14; 26 5; 32a = *I.G.*, II<sup>2</sup>, 1587 7; 38 = *I.G.*, II<sup>2</sup>, 1586 13

ἥλιος: ἡλίον, *passim*

θυγάτηρ: θυγάτηρ, 3 13; θυγατέρα, 14 50

ἱερόν, 2 7

ἵππος[τάσιον(?)], 14 49-50

καινοτομία, 28 5-6, 33 2, 35 3; καινοτομίαν, 32a = *I.G.*, II<sup>2</sup>, 1587 5-6, 38 = *I.G.*, II<sup>2</sup>, 1586 [1, 8], *Ath. Mitt.*, LXII, 1937, pp. 11-12, Nos. 12 and 13

καλέω: καλούμενος 32a = *I.G.*, II<sup>2</sup>, 1587 4, [6-7]; καλουμένη, *ibid.* 9; καλούμενον *ibid.* [7], 11; καλούμενα, 9 7, 21 16

κάμινος, 1 = *Hesperia*, X, pp. 14 ff., 1 54, 5 85, [13, 11, 57], 19 25, 32b = *I.G.*, II<sup>2</sup>, 1588 6; καμίνον *I.G.*, II<sup>2</sup> 2750

κατοτομή, 2 [18-19], 5 75-76; κατοτομήν, 16a = *I.G.*, II<sup>2</sup>, 1582 70; κατοτομάς, 1 = *Hesperia*, X, pp. 14 ff., 1 53, 72

κλήτηρ: κ(λητήρες) or κ(λητήρε), [14 41], 16d 1 κυρωτής, 14 46, [16d 4]

λόφος, 10 = *I.G.*, II<sup>2</sup>, 1585 11, 13 19, 15 31, 16a = *I.G.*, II<sup>2</sup>, 1582 74, 131, 22 14, 24 6; λόφωι, [2 13], 3 15, [5 89], 16a = *I.G.*, II<sup>2</sup>, 1582 57

μέρος: μέρη, 14 42

μέταλλον, *passim* as mine being leased; named as boundary of a mine, [6 1], 7 = *I.G.*, II<sup>2</sup>, 1583 19, 21, 8 = *I.G.*, II<sup>2</sup>, 1584 [12, 14], 10 = *I.G.*, II<sup>2</sup>, 1585 4, [13 10, 75], 16a + b = Face A col. II [66], 16a = *I.G.*, II<sup>2</sup>, 1582 [39, 43-44], 58, 59, [81], 98, 120, 121, [185], [18 53], 19 34, 20 9, [24], 56, 32b = *I.G.*, II<sup>2</sup>, 1588 [1], 2, 7, 12; μετάλλον, 5 75-76; μέταλλα, 1 = *Hesperia*, X, pp. 14 ff., 1 40, [24 1], 34 2, 37 1

νοτόθεν (variously abbreviated), *passim*

ὁδός, 1 = *Hesperia*, X, pp. 14 ff., 1 55, 4 16, [24, 27, 30], 5 [10], 27, [33], 35, 50, [6 5, 10-11], 7 = *I.G.*, II<sup>2</sup>, 1583 26, 8 = *I.G.*, II<sup>2</sup>, 1584 [4], 7, 10 = *I.G.*, II<sup>2</sup>, 1585 [2], 10, 11 9, 13 [76, 110], 145, [14 19, 33], [15 25, 75], 16a + b = Face A col. II [53], 16a = *I.G.*, II<sup>2</sup>, 1582 48, 53, 66, 68, [80, 90], 104, [109], 111, 116, 116, 128, [133, 174-175], 16b = *Hesperia*, V, pp. 393 ff., 10 [262, 302], 18 15, [25], 64, 68, 19 7, [17], 25, 20 14, [14-15, 18, 28, 41], 55, [24 7], 25 [18, 19], 30, 26 9, [28 1, 9, 11], [29 5, 6], 32a = *I.G.*, II<sup>2</sup>, 1587 16, 16, [21], 32b = *I.G.*, II<sup>2</sup>, 1588 11

οἰκία 1 = *Hesperia*, X, pp. 14 ff., 1 75, 16f 3, 18 10, [24-25], 20 12; οἰκίαν, 14 48, 16d [6]

ὄρος, 1 = *Hesperia*, X, pp. 14 ff., 1 44

ὀφλισκάνω: [ὀ]φλεῖν, 16e 2; ὠφληκότος, 7 = *I.G.*, II<sup>2</sup>, 1583 [39]

παῖς: παῖδες, 19, 12; παῖδων, 1 = *Hesperia*, X, pp. 14 ff., 1 45, 79-80, [5 4-5], [19 12], 28 8-9, [11], 29 4, [8]

παλαιόν *passim*, see chart

πανταχόθεν, 1 = *Hesperia*, X, pp. 14 ff., 1 41, 19 21

περίβολος, 16a = *I.G.*, II<sup>2</sup>, 1582 65

πέρνημι: ἐπράθη, 1 = *Hesperia*, X, pp. 14 ff. 1 40, [14 44], [37 1]; πραθέντα, 24 1

πόλις: πόλει, 14 42

πρυτανεία: πρυτανείας, 14 45, 16a = *I.G.*, II<sup>2</sup>, 1582 62, 32a = *I.G.*, II<sup>2</sup>, 1587 10, 34 3, [11], [37 2]

πρύτανις: πρυτάνεων, [16d 4]

πύργος, 1 = *Hesperia*, X, pp. 14 ff., 1 74

πωλητής: πωληταί, 1 = *Hesperia*, X, pp. 14 ff., 1 1, [24 1], 34 1

ρέω: ρέουσα 20 10

σκοπιά: σκοπιᾶι, 1 = *Hesperia*, X, pp. 14 ff., 1 41

στήλη: στήλης, 1 = *Hesperia*, X, pp. 14 ff., 1 47-48, 50, 51, 61, 82, [13 3, 6, 30], 16a = *I.G.*, II<sup>2</sup>, 1582 62, 72, [75], 18 [19-20], 61, [66], [19 5, 10, 14], 20 8, [34 13], [37 4]; στήλην, *passim*; στηλών, 16a = *I.G.*, II<sup>2</sup>, 1582 61

συντομή: συντομάς, 32a = *I.G.*, II<sup>2</sup>, 1587 15

τέλμα, 16a + b = Face A col. II 59

τέμ[ενος], 16d 7

τιμή, 14 21, [27-28], 42, 15 36, [41, 47]; τιμῆς, 14 44

[τί]μημα 16e 3

ὔδωρ: [ὔ]δατος, 28 4

φελλεύς, 16a = *I.G.*, II<sup>2</sup>, 1582 53

φέρω: φέρονσα, *passim*

χαράδρα, 1 = *Hesperia*, X, pp. 14 ff., 1 56, [3 7-8], 5 56, 7 = *I.G.*, II<sup>2</sup>, 1583 3, 20, 8 = *I.G.*, II<sup>2</sup>, 1584 [16], [9 13-14], 13 26, 167, 14 6, 16a + b = Face A col. II 37, 54, 16a = *I.G.*, II<sup>2</sup>, 1582 39, 40, [110], 123, 19 29-30, 20 10, 35, 52, [21 15], 32a = *I.G.*, II<sup>2</sup>, 1587 9

χρῆμα: [χ]ρήματα, 2 14-15

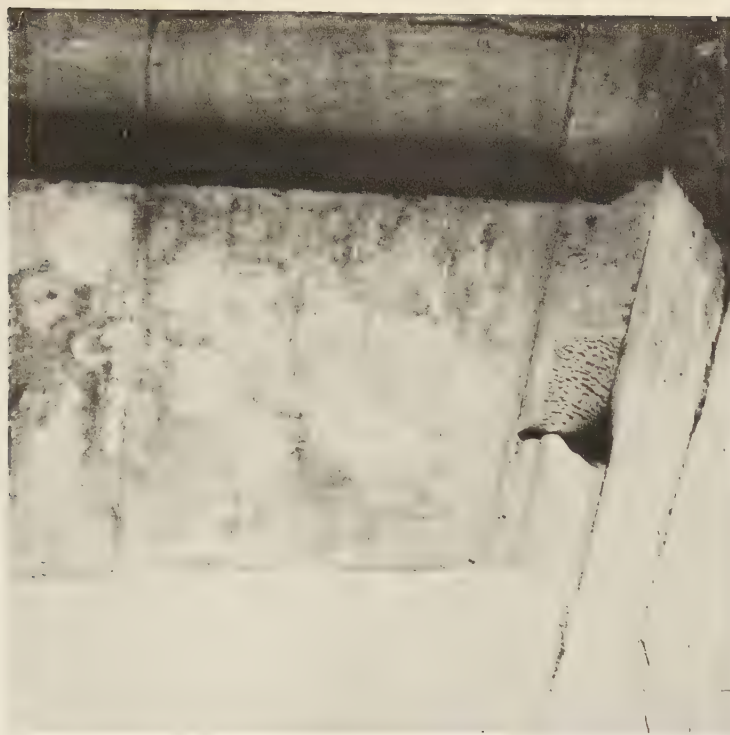
χρηματίζω: [χρ]ηματίσαι, 13 126

χωρίον, 1 = *Hesperia*, X, pp. 14 ff., 1 62, 68, 70, [4 14], 5 [9], 9, [55], 71, [13 44], [14 5, 48], 16a = *I.G.*, II<sup>2</sup>, 1582 [48], 50, 16b = *Hesperia*, V, pp. 393 ff., 10 [302], 16e 4-5, 8, 19 21, [20 5, 5, 19, 50], [25 29], 29 8-9, 33 1; χωρίωι 16e 6; χωρία, 1 = *Hesperia*, X, pp. 14 ff., 1 43, 9 8, 14 19, 16a = *I.G.*, II<sup>2</sup>, 1582 75, 20 11; χωρίων, 13 123; χωρίους, 1 = *Hesperia*, X, pp. 14 ff., 1 67-68

ὠνητής, *passim*



1. North Side of the North Column of the Opisthodomus, Showing Contact between the Marble Sill of the Grille and the Bottom Drum of the Column



2. North Face of the South Anta of the Pronaos, Showing Contact between the Marble Sill of the Grille and the Base of the Anta

GORHAM P. STEVENS: GRILLES OF THE HEPHAISTEION

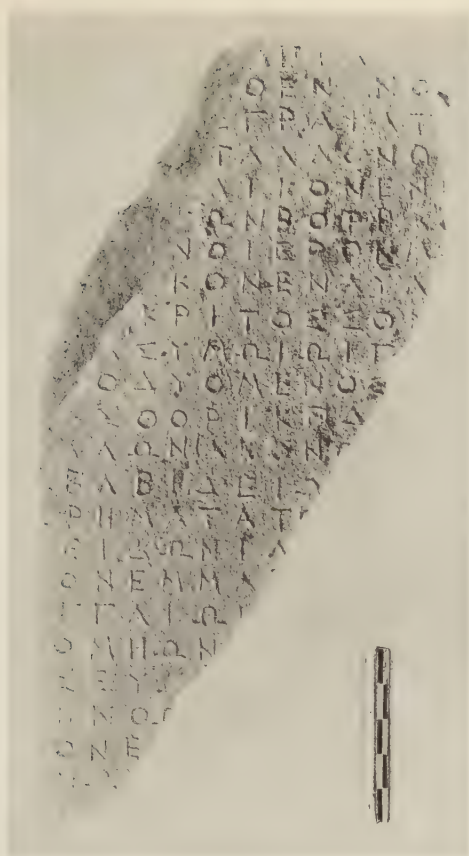




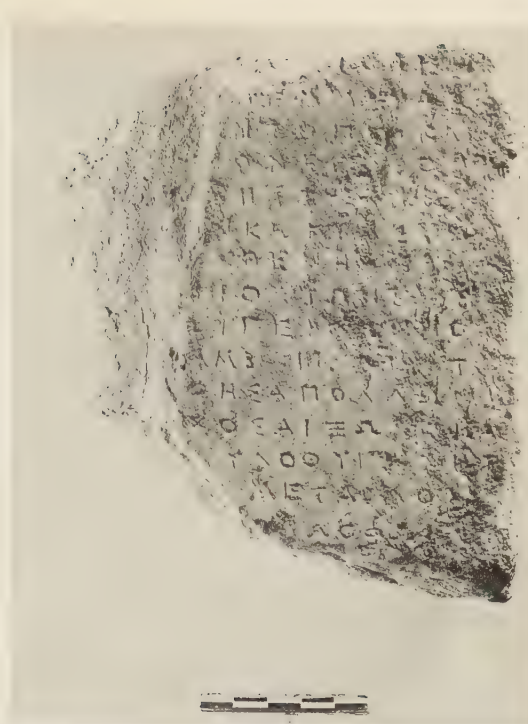
1. Tile Standard in the Agora at Athens



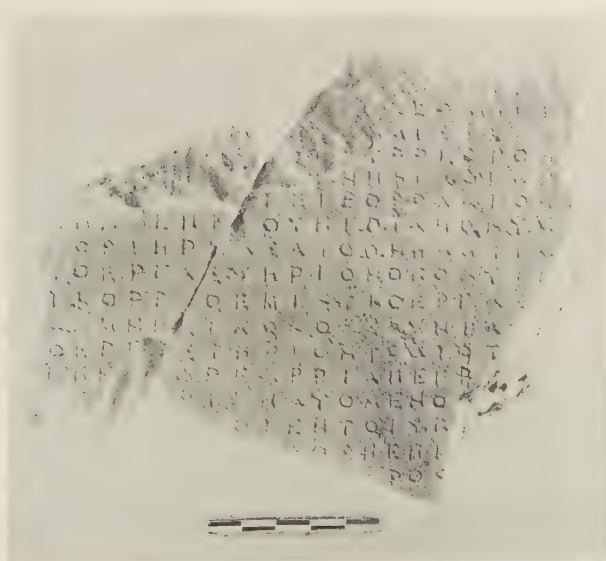
2. Terracotta Pan Tile A938 and Terracotta Cover Tile A1322, both in the Agora Museum



No. 2



No. 3

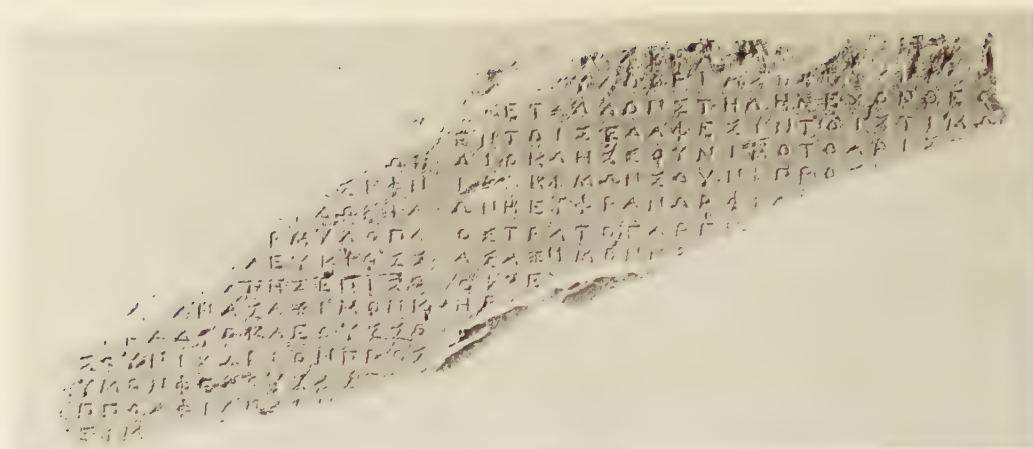


No. 4. Face A



No. 4. Face B





No. 5a



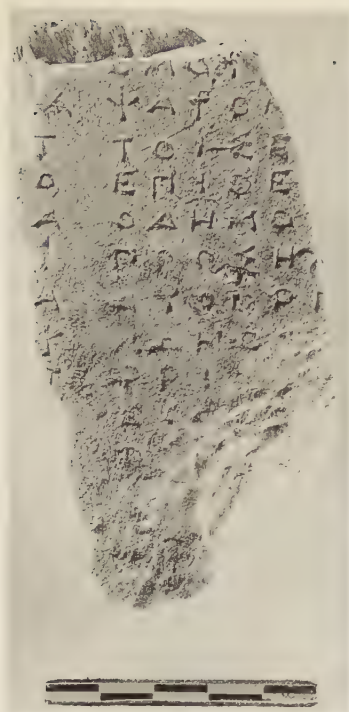
No. 5b

No. 5c

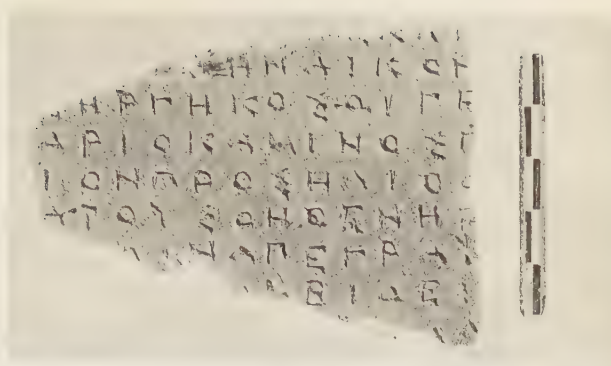


No. 5d





No. 5f



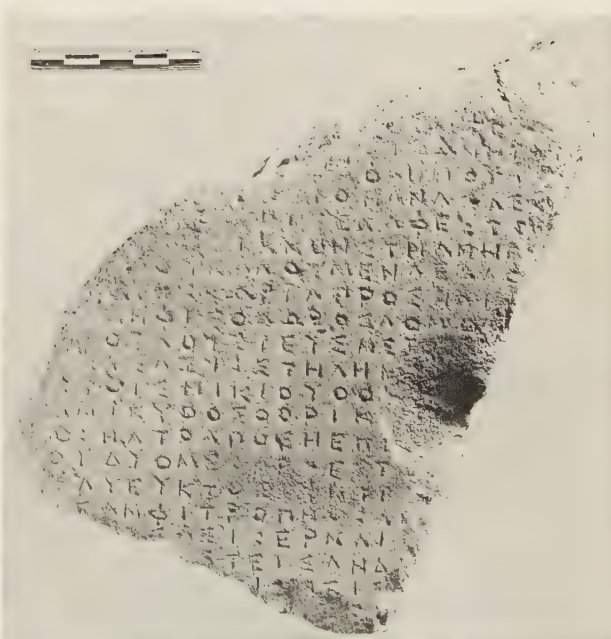
No. 5e



No. 6b



No. 6a



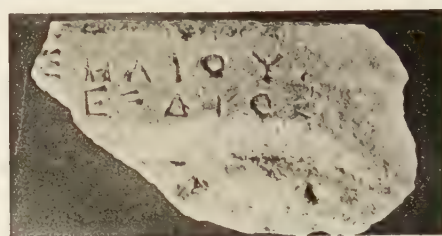
No. 9



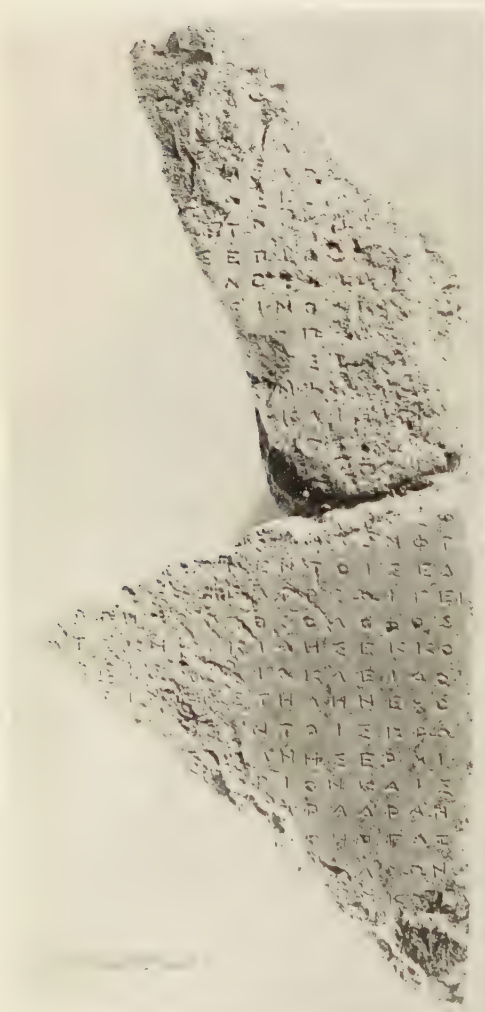
No. 11



No. 12a



No. 12b



No. 13a. Face A

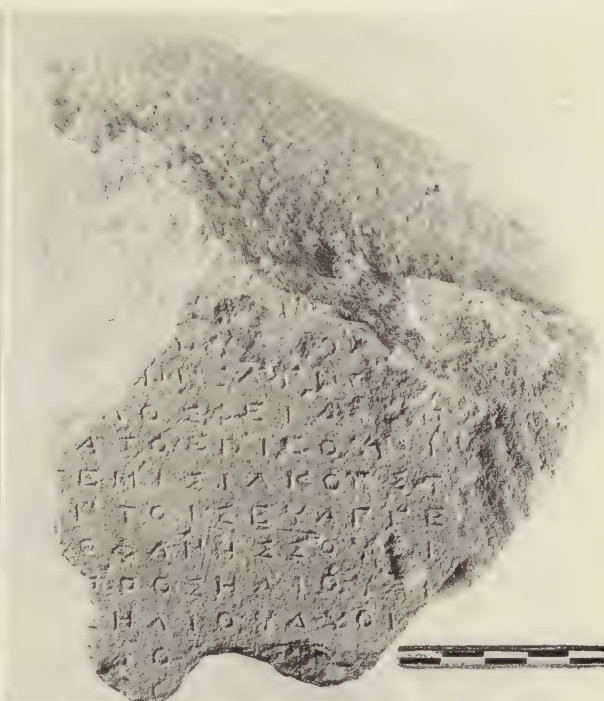


No. 13a. Face B

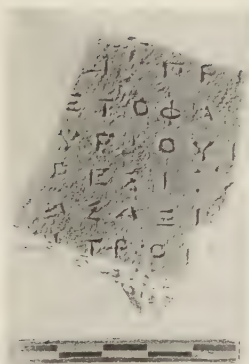




No. 13b. Face A



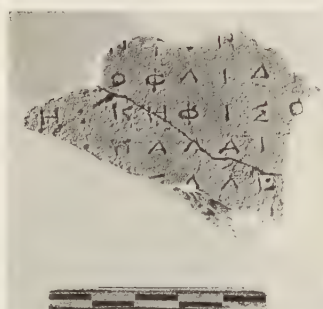
No. 13b. Face B



No. 13c



No. 13d



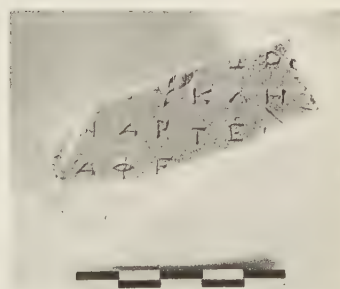
No. 13e



No. 13n

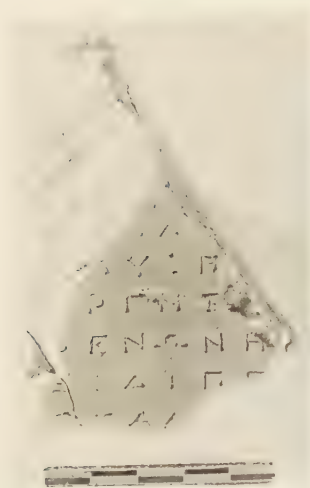


No. 13i

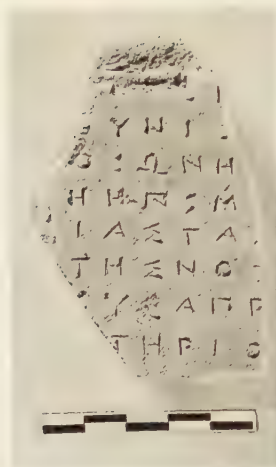


No. 13k

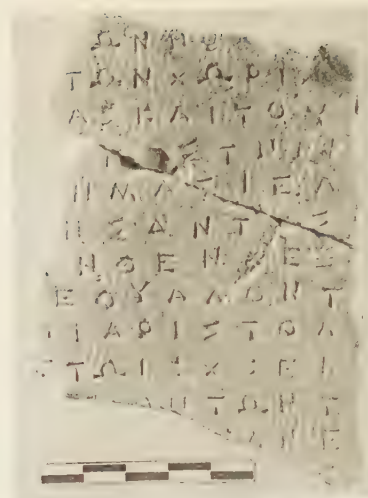




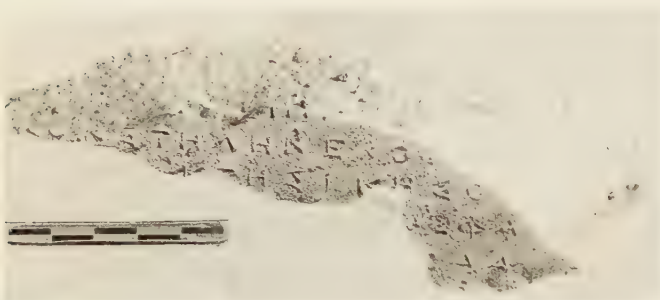
No. 13f



No. 13g



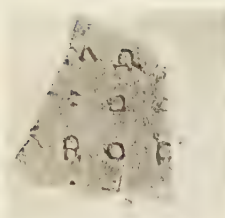
No. 13j



No. 13h



No. 13l



No. 13m



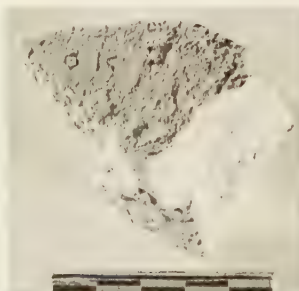
No. 13o



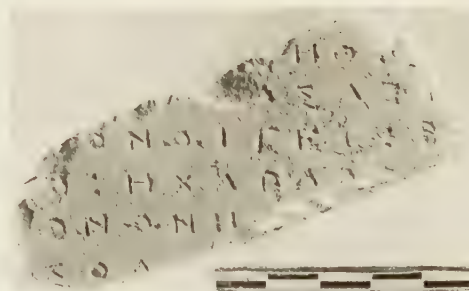
No. 13p



No. 13q



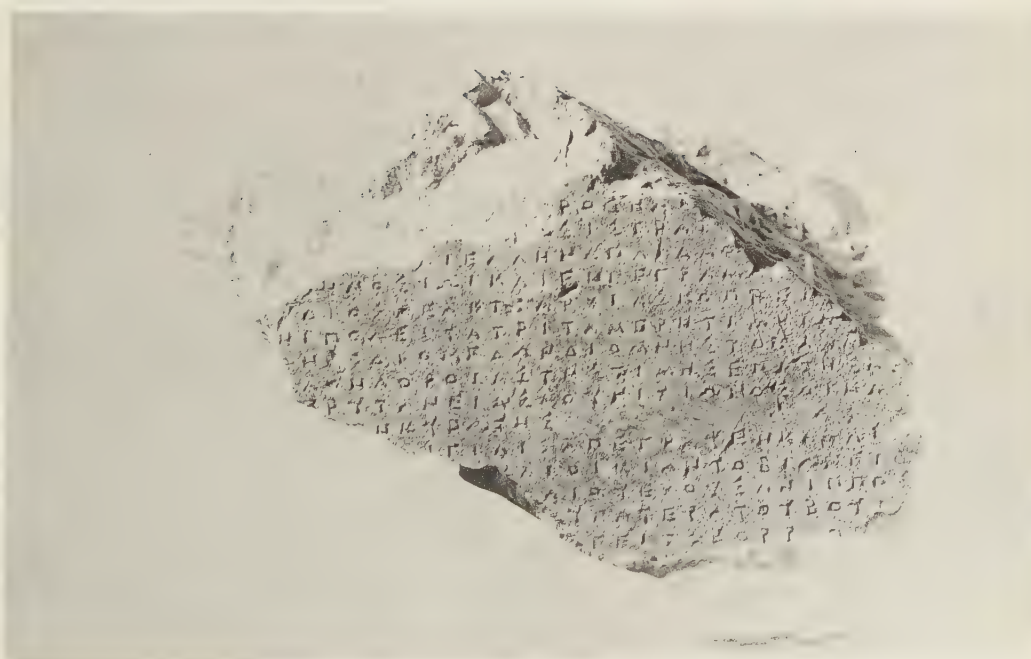
No. 13r



No. 13s

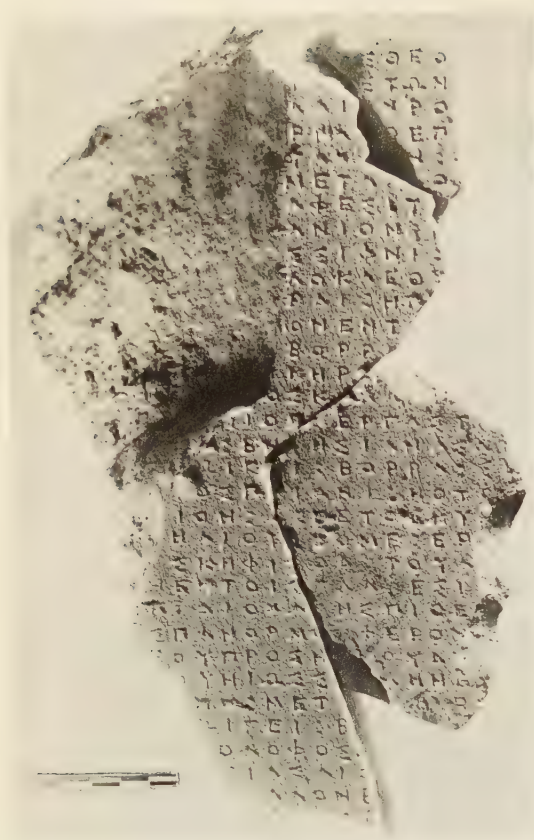


No. 14. Face A

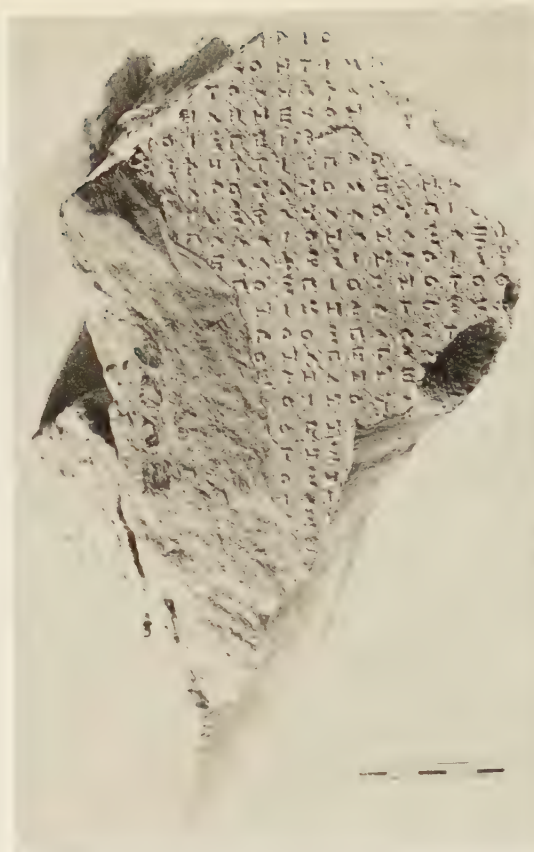


No. 14. Face B

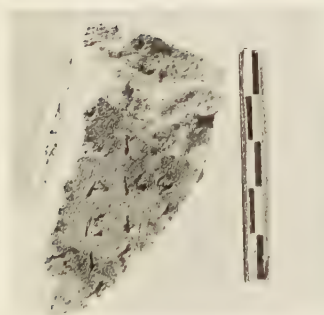




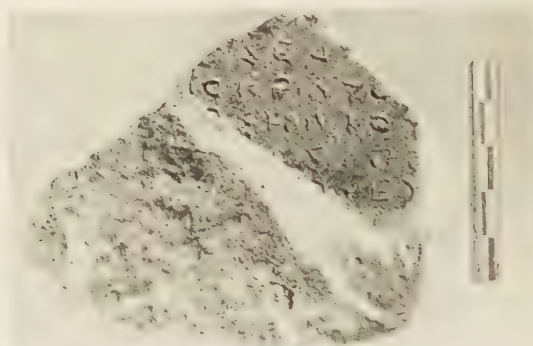
No. 15a. Face A



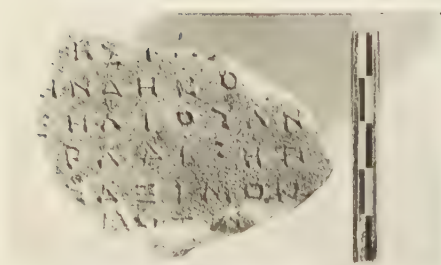
No. 15a. Face B



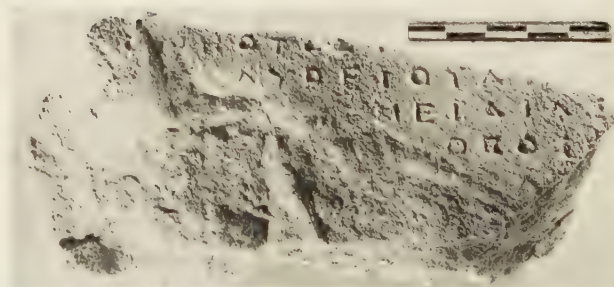
No. 15b



No. 15d



No. 15c

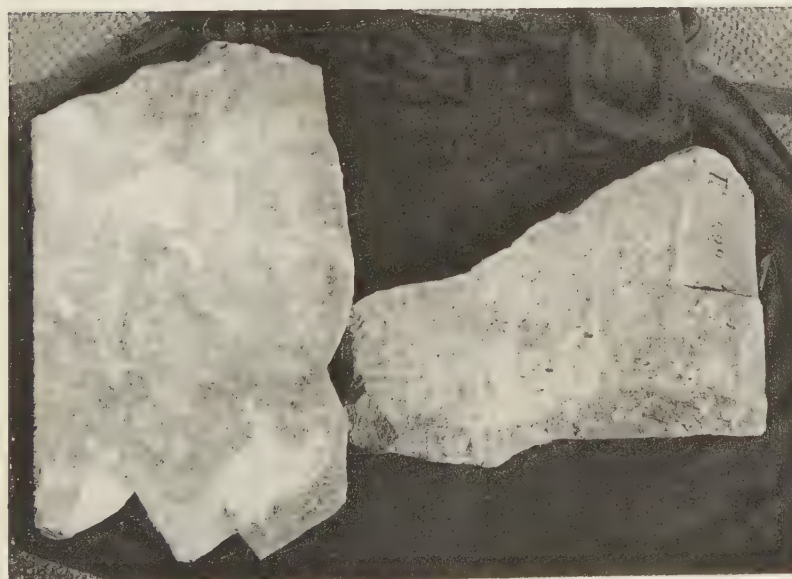


No. 15e

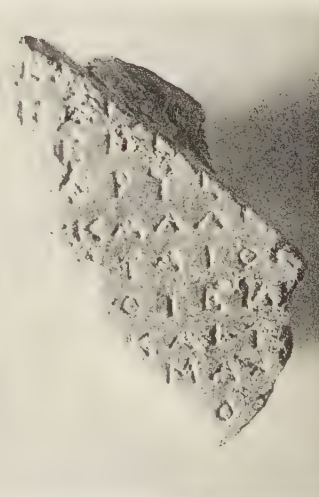




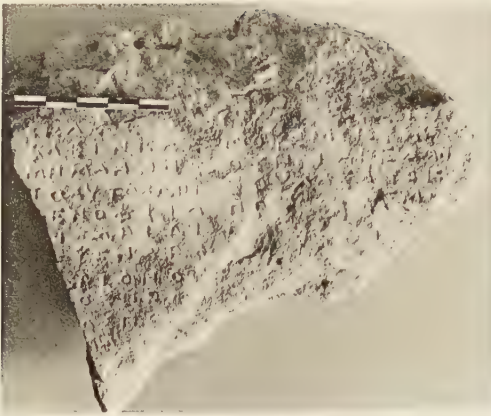
No. 16a (*I.G.*, II<sup>2</sup>, 1582). Face A



Nos. 16a and b as joined. Face A



No. 16d



No. 16e



No. 16f



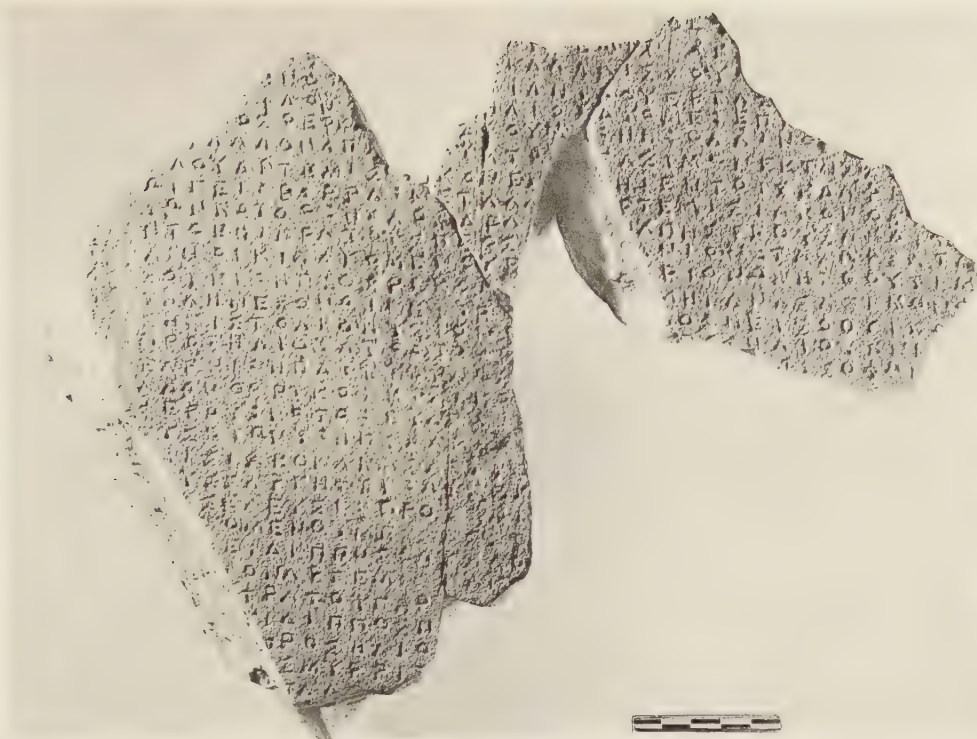
No. 18



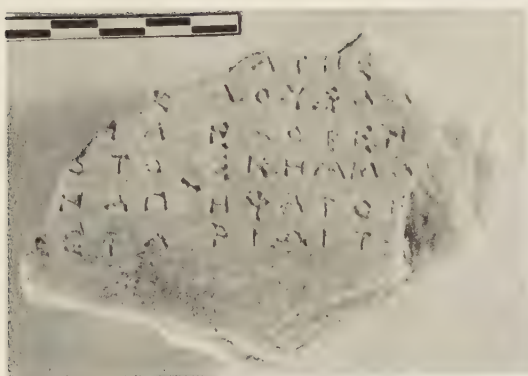
No. 19

MARGARET CROSBY: THE LEASES OF THE LAUREION MINES

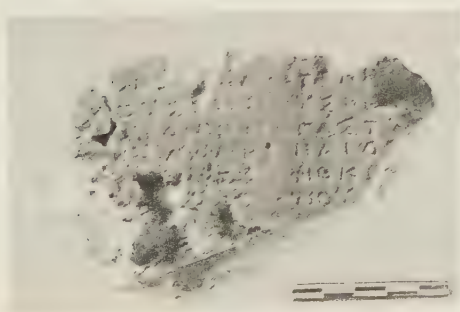




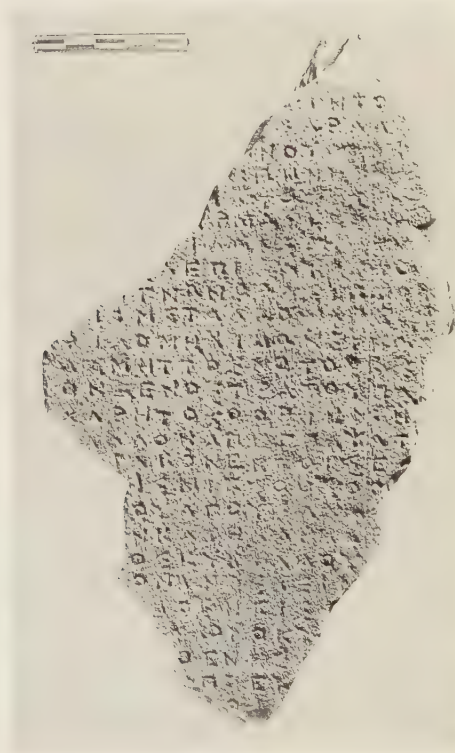
No. 20a



No. 17

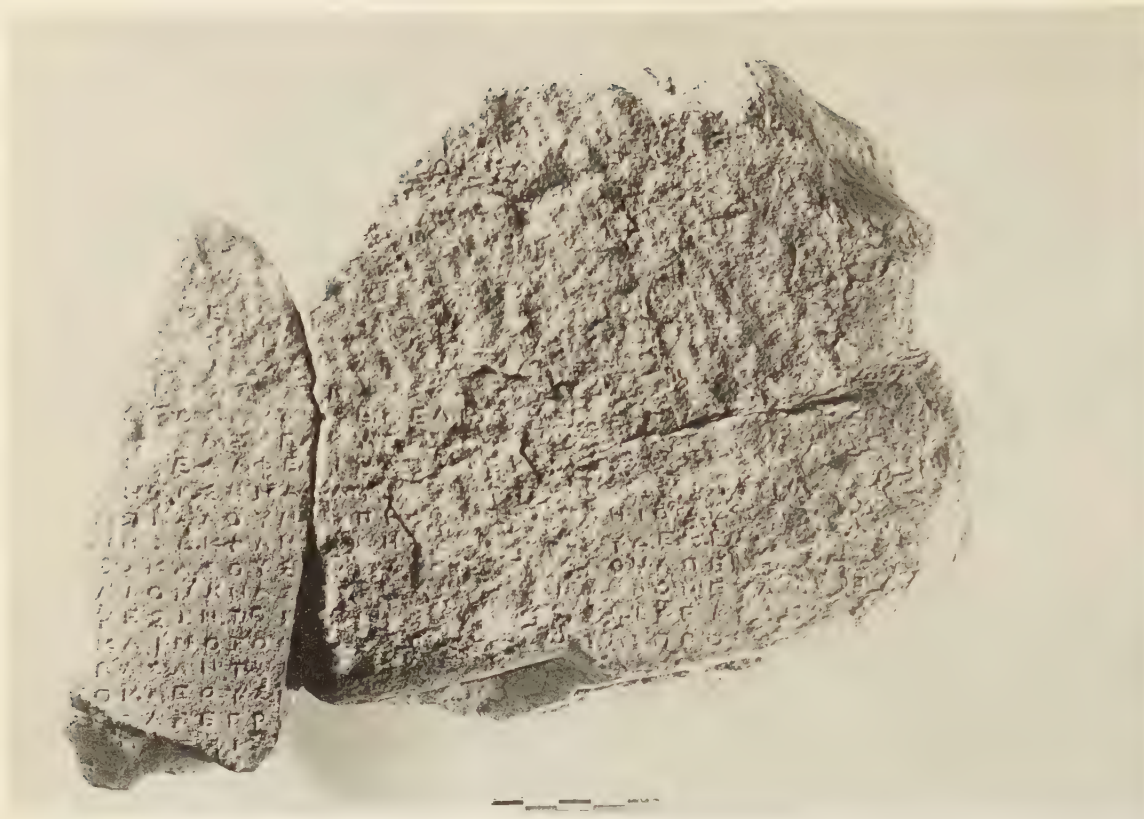


No. 21b



No. 20b

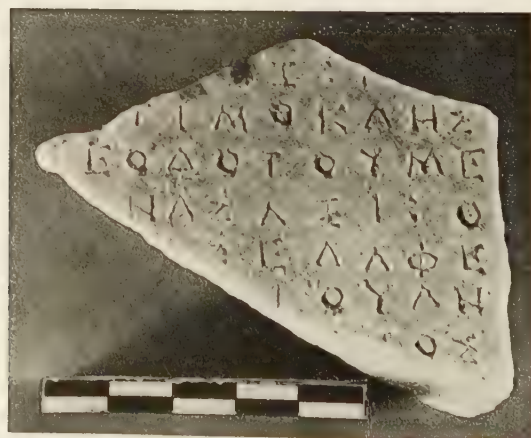




No. 21a



No. 22



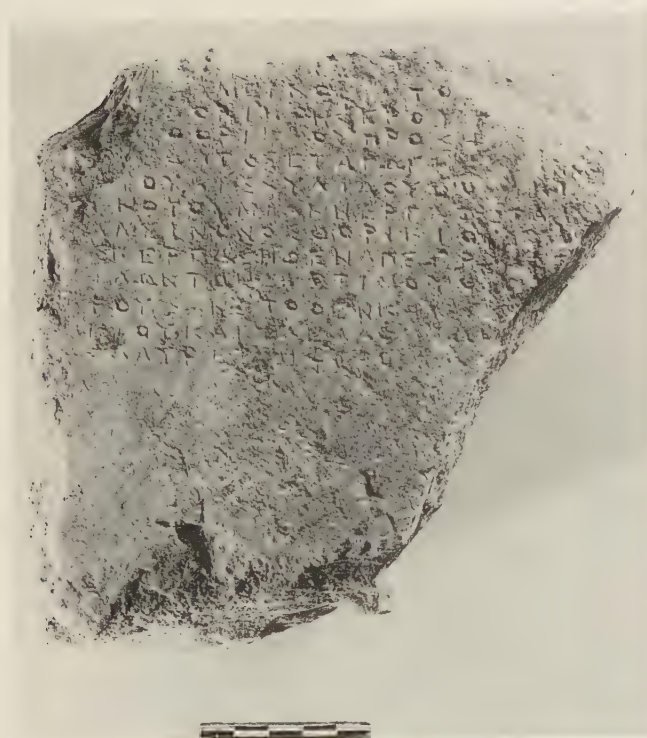
No. 23



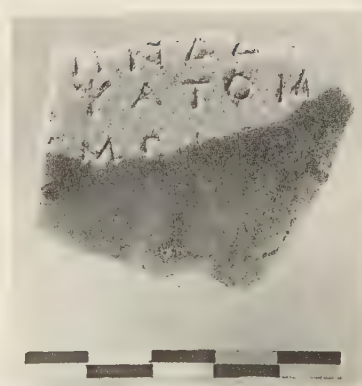
No. 24



No. 25



No. 28



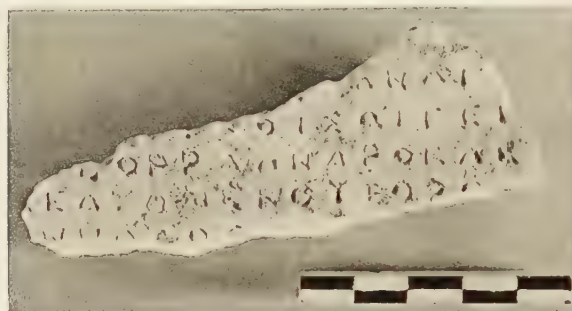
No. 27



No. 26



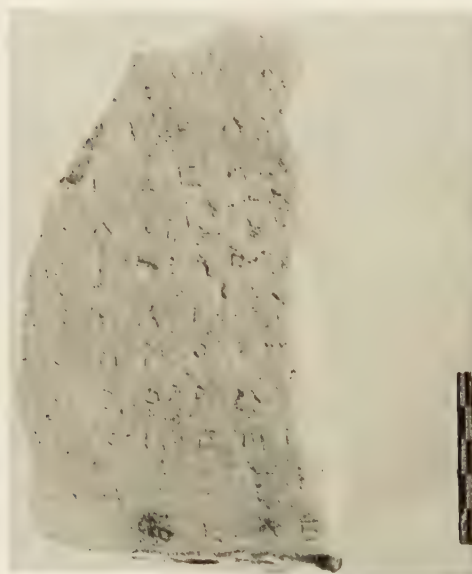
No. 29a



No. 30

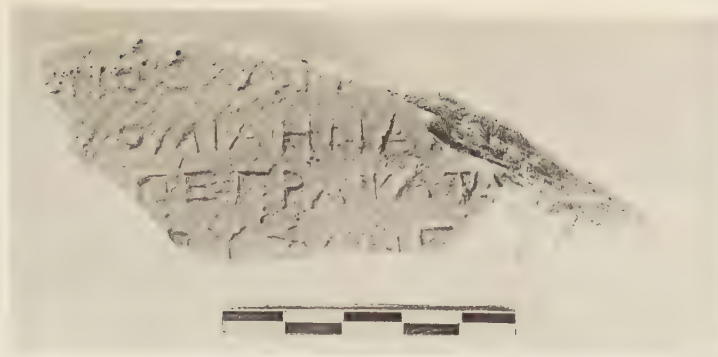


No. 29b



No. 31

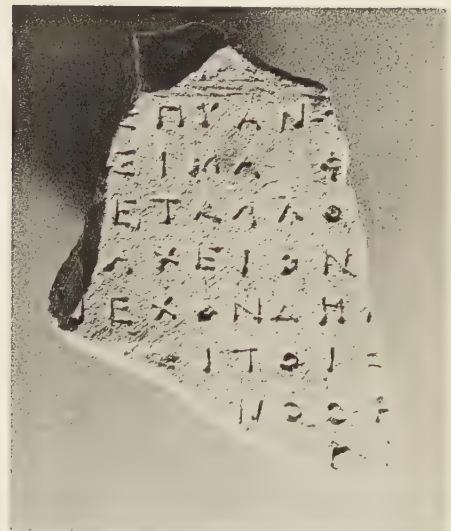




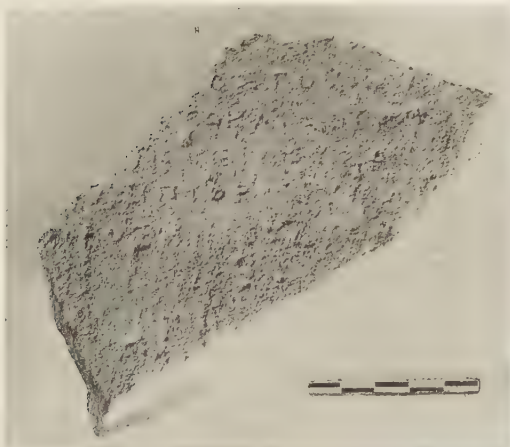
No. 33



No. 34a



No. 34b



No. 35



No. 37



## EXCAVATIONS IN THE ATHENIAN AGORA: 1949

(PLATES 98-107)

THE fourteenth season of exploration conducted by the American School of Classical Studies in the Athenian Agora will be memorable chiefly as having witnessed the actual beginning of work on the reconstruction of the Stoa of Attalos to house the finds from the excavation. Less spectacular but no less essential to the completion of the enterprise was the progress made in the systematic final exploration of the vast area opened up hastily in the 30's; such work this year was confined to the area to the west of the Areopagus. Apart from the field work, steady progress was made in the study and publication of material brought to light in earlier campaigns, and the mechanics of study were greatly eased by the reorganization of the records both in Athens and in Princeton.

This season, as ever, the undertaking in the Agora is indebted to the officials of the School for their active interest on its behalf. A particular obligation must be acknowledged to Professor Carl W. Blegen who during his directorship in 1948-49 conducted the negotiations that have begun to make a reality of the long dreamed-of Agora Museum and who also, both in Washington and Athens, smoothed the way for the program of Fulbright fellowships that has already so vitally affected the work in the Agora as in other departments of the School's activities.

We owe much also to the skill and devotion of our Greek technical staff. Mr. Sophokles Lekkas, our chief foreman, to name but one, has shown amazing energy and ingenuity in mastering the technical problems raised by the work on the Stoa of Attalos.

Field work was directed by Mr. Eugene Vanderpool, Mr. Rodney S. Young, and Miss Margaret Crosby, for lesser periods by Mr. G. Roger Edwards, Mrs. Evelyn Lord Smithson, and Miss Evelyn B. Harrison. I am again indebted to Mr. Vanderpool for assuming charge of the Agora during my absences in America. Mr. John Travlos as Architect of the School's Excavations devoted practically the whole of his time to the Agora and above all to the Stoa of Attalos, concerning himself with the solution of the many problems that were still outstanding regarding the original design of the building and beginning to grapple with the practical problems of the reconstruction. Miss Marian Welker as staff artist completed a set of rendered drawings and water colors of the Odeion and many drawings of vases for various studies by members of the staff.

We are once more deeply indebted to Miss M. Alison Frantz who has again given freely of her time and skill to attend to our photographic needs. In addition to the



routine work, she has this year completed the photography of all the sculpture of the Hephaisteion, both the friezes on the building and the recently identified pedimental figures. It is hoped that these photographs together with a brief text may soon be incorporated in a book on the temple. Another part of the season's photographic program was the making of 300 color transparencies for lantern slides.

Miss Lucy Talcott as the one in charge of the records and museum has welcomed back to the Agora all the material that was cased and sent for safekeeping to the National Museum on the outbreak of World War II. As many of the objects as could be accommodated in the now crowded temporary museum were again put on display. No damage whatever was suffered by these objects, among them a number of fragile ivories, during their long incarceration, for which happy outcome we are indebted to the generosity with which the authorities of the National Museum placed some of their best storage room at our disposal. Miss Talcott in the course of the year has also seen to the labelling and more convenient classification of the many thousands of photographs in the Agora files so that they can now be used with ease either by members of the staff or by visitors. In this undertaking she has had the assistance of Mrs. Evelyn Lord Smithson, Miss Evelyn Harrison, Miss Ellen Kohler, and Miss Marian Jenkins, all first-year members of the School in Athens. At the same time a duplicate set of photographs was put in order by my assistant, Mrs. Robert France, in the Institute for Advanced Study at Princeton.

Mr. G. Roger Edwards has worked steadily throughout the year on his study of the Hellenistic pottery from the Agora. After establishing the line of development in the first century B. C., at present a blind spot, Mr. Edwards plans to present a synoptic view of the great mass of material by categories as a final publication in this department.

Miss Virginia R. Grace, a fellow of the School in the spring of 1949, spent much of her time at the Agora throughout the calendar year 1949, bringing up to date the sorting and reading of stamped amphora handles in the Agora collections. Miss Grace, with her trained Greek assistants, has also worked systematically through the collection in the National Museum in Athens which, although largely undocumented, provides a great body of comparative material. Between Agora and National Museum Miss Grace reports that in the course of the year she has sorted some 20,000 handles and read and tabulated some 6,000.

The Agora has profited greatly from the services of Fulbright fellows. Of the group of senior research fellows appointed for the academic year 1948-49, six (the Misses Lucy Talcott, Margaret Crosby, Marian Welker, and Messrs. Eugene Vanderpool, Rodney S. Young, G. Roger Edwards) elected to devote the year to various aspects of work in the Agora, while Mr. John Travlos received a grant-in-aid to enable him to visit other archaeological sites in Greece for purposes of comparative study. For the year 1949-50 five of these senior appointments were renewed for the continuation

of studies in the Agora: (the Misses Talcott, Crosby, Welker, and Messrs. Vanderpool, Edwards) while Miss Grace, appointed for the first time for 1949-50, included the further study of the Agora material within the scope of her all-embracing pursuit of the stamped wine jar. Of the pre-doctoral fellows appointed for the year 1949-50, Miss Evelyn Harrison has undertaken the study of the portrait sculpture in the Agora collection and Mrs. Evelyn Smithson is engaged on the study of a series of groups of Protogeometric pottery which promises to make much firmer our notions of the development of the style.

Such appointments as these would appear to satisfy the ideals underlying the Fulbright program inasmuch as they provide able students with new and interesting material as a basis for research which may be carried on under the auspices of an established American institution but in circumstances ideally suited to enable the student to come to know the Greek people of many classes by actually working with them.

We have again to acknowledge valuable assistance from many volunteers. Mr. Gorham P. Stevens is not only ever willing to give us the benefit of his long and wide experience, but he has also undertaken to work out a number of our architectural problems, his papers on which will continue to appear in *Hesperia* from time to time. Until her departure from Athens with her husband in mid January of 1949, Mrs. Clayton Whipple continued to spend many hours each week over her drawing board in the Excavation House; her initials on the drawings now appearing in articles in *Hesperia* will testify to the variety and the volume of her contributions. For many months Mr. Evan Jenkins assisted with the mechanics of excavation procedure both indoors and outside. Among the Greek students of Classics from the University of Athens who have gained practical experience while assisting with the work of conservation and recording, particular mention may be made this season of Miss Maria Komi.

Talent and willing effort would avail little in this enterprise were money not available to pay the Greek workmen and technicians and to keep the Excavation House running. In these years when the American dollar goes less far in Greece than ever before in the School's history we are particularly indebted to those friends whose financial contributions have made possible the continuance of the work. Among such benefactors this season have been Miss Margaret Crosby, Mr. John Crosby, Mrs. Lyndon M. King, Miss Lucy Talcott, and Mr. Rodney S. Young.

We record with regret the departure this year of two staff members of long standing: Miss Margaret Thompson and Mr. Rodney S. Young. The years 1937 to 1940 Miss Thompson, working in close collaboration with Mrs. T. L. Shear, devoted to the cleaning, classification and study of the Agora coins. During the War she rendered distinguished service in the Greek War Relief Association. On returning to the School in 1947, her first assignment was the editing of the documentary film,

*Triumph over Time*. In the course of 1948-49 she completed the cleaning and classification of the Agora coins and thereafter accepted an appointment with the American Numismatic Society. A series of substantial articles in *Hesperia* attest the quality of Miss Thompson's scholarship and sharpen our regret that means were not available to enable her to assist to the end with the publication of this important department of the results of the excavation.

Mr. Rodney S. Young's appointment as an Agora Fellow ran from 1934 to 1940 and from 1946 to 1949; the gap was filled by wartime service in Greece, Washington and the Near East and by a term with *U.N.R.R.A.*, Greece. Although in all his years of excavating he never worked actually *in* the Agora, having supervised the exploration of the slopes of Kolonos Agoraios, the Hill of the Nymphs, and the Areopagus, he brought to light a tremendous amount of evidence for the study of the private and industrial life that impinged so closely on the public square and of the burial habits of the Athenians. Much of this material will be presented in a report now ready for the press. His own special studies have dealt chiefly with the eighth and seventh centuries B. C. and they have done much to make intelligible this prologue to Athenian art and way of life in the classical period. The best wishes of his colleagues go with him to his new appointment in the University of Pennsylvania and the University Museum and also in his endeavor to track out some of the sources of eastern influence on early Greece in his incipient excavations at Gordion.

### THE STOA OF ATTALOS

The decision having been taken to start rebuilding the Stoa of Attalos to house the Agora Museum, operations were begun on April 4, 1949, and were continued, with some interruptions, throughout the calendar year.<sup>1</sup> The practical advantages and the archaeological interest of the project are self-evident. Another aspect of the matter is the fact that the great building rising again in the middle of Athens will undoubtedly attract the attention of visitors to the city. As the source of a potential increment to the touristic resources of Greece the project has been included in the program initiated by the Economic Cooperation Administration for the rehabilitation of museums and archaeological sites in Greece and hence is receiving some financial support in its initial phases under the Marshall Plan. Inasmuch as the program is administered by the Greek Government, the American School of Classical Studies has agreed to carry out the work for the Greek Ministry of Education and in doing so enjoys the invaluable benefit of the skill and long experience of Professor A. Orlandos, head both of the Archaeological Service and of the Department of Restorations. Mr. John Travlos, Architect of the School's Excavations and an old pupil of Professor Orlandos,

<sup>1</sup> Cf. *Hesperia*, XVIII, 1949, pp. 226-229; *Archaeology*, II, 1949, pp. 124 ff.



has been designated as supervising architect. The field work is directed by Mr. Eugene Vanderpool on whose preliminary reports I have drawn freely in the following account.

The first task in connection with the project was to clear the area of the building of the many hundreds of loose lying ancient blocks, some from the Stoa itself, others brought to the spot by the builders of the "Valerian Wall" in the third century after Christ and left near by when that wall was largely dismantled by the Greek Archaeological Society in their excavations of last century (Pl. 98a). The last remnant of this fortification within the area of the Stoa has now been removed, viz., the lowest courses of a rectangular tower at the middle of the building and scattered blocks from the bottom of the curtain wall throughout the length of the Stoa (Pl. 99a).

From this material much supplementary evidence has been gathered for establishing the original scheme of the building. It is now clear, for instance, that the series of Pergamene capitals previously assigned to an inner colonnade on the ground floor must derive rather from a corresponding colonnade on the upper floor, making way on the ground floor for orthodox Ionic capitals of which fragments survive. A series of Ionic frieze blocks is now available to replace the triglyph and metope frieze restored by Richard Bohn in the upper exterior order.

Additional evidence for the restoration of the Stoa has been gathered by John Travlos from two early drawings, one made by Edward Dodwell early in the nineteenth century (Pl. 99b),<sup>2</sup> the other, in the Gennadeion Library, a water-color by an unknown artist to be dated apparently about 1785. Both drawings show the north end of the building in a much more complete state than the present. They establish two points of great importance, first that the end of the Stoa was finished with a gable and secondly that the gable end was broken near the middle by an opening enframed with pilasters, presumably for the lighting of the stair well.

The rectangular foundation that juts forward from the front of the terrace of the Stoa near its mid point and that was previously restored as a stairway leading from the square up to the terrace (Pl. 98a, right centre), is now seen, on being cleared, to be much too massive and too broad for this purpose; it is to be regarded rather as the underpinning for the pedestal of a bronze quadriga, most of the Hymettian marble blocks for which had been reused in the near by tower of the "Valerian Wall," among them several from the topmost course with holes in their tops for securing the horses' feet. An inscription carved on the blocks of the pedestal records a dedication to the Emperor Tiberius. Inasmuch, however, as the foundation is certainly contemporary with the Stoa and the scheme of the pedestal is very similar to that of the "Monument of Agrippa" in front of the Propylaia, we may hypothecate that the monument origin-

<sup>2</sup> *Views and Descriptions of Cyclopiian, or, Pelasgic Remains in Greece and Italy*, London, 1834, pl. 71.

ally honored the Pergamene dynasty and was subsequently converted to the glory of the emperor, a history paralleled by that of the "Monument of Agrippa."<sup>3</sup>

The quadriga was only one of a whole series of monuments that employed the terrace wall of the Stoa as a background, particularly toward the north where the falling terrain called for a greater height of wall. Most of these monuments are now represented only by the lowest foundations of their pedestals, but one of those from the extreme north end of the series has fared better. The pedestal in this case consisted of an unfluted column of Hymettian marble, four drums of which were found by the excavators in 1936 lying as they had fallen in the late third century after Christ (Pl. 100 a and c). Since both the upper and the lower half-rounds are preserved and since the intermediate joints bear mason's marks (alpha, beta, gamma, starting from the top), the four drums clearly comprise the whole shaft; they indicate a total height of 7.19 m., a lower diameter of *ca.* 0.88 m. and upper diameter of *ca.* 0.75 m. We may assume that the column, like those above the Theatre of Dionysos, was crowned by a Corinthian capital, but, whereas the columns by the theatre supported tripods, ours presumably carried a statue. On the lowest drum is inscribed the dedication by the people in honor of Quintus Lutatius, son of Quintus (?).<sup>4</sup> The man honored is perhaps to be identified with the well-known Quintus Lutatius Catulus, son of Quintus, who was a supporter of Sulla and is conjectured to have accompanied Sulla to Greece.<sup>5</sup> Consul in 78 B. C. and one of the judges at the trial of Verres in 70 B. C., he died in 61 B. C. The lettering, with its modest apices and semicursive curves, is readily paralleled in the second quarter of the first century B. C.

The clearing of the Stoa has led to the resurrection of an inscribed marble statue base long known only through the published text (*I.G.*, II<sup>2</sup>, 3781): "Karneades of Azenia, a dedication by Attalos and Ariarathes of Sypalettos." The inscription occurs on the front of a plinth of Hymettian marble, in the top of which are dowel holes for securing a seated bronze statue. The subject, Karneades, is familiar as the founder and head of the New Academy and as the leading philosopher of Athens through much of the second century B. C. Attalos and Ariarathes had sat at his feet as young men. Later, and in all likelihood after the completion of the Stoa, which would also mean after they had mounted the thrones of Pergamon (159 B. C.) and of Cappadocia (162 B. C.) respectively, the princes dedicated the statue, modestly inscribing themselves

<sup>3</sup> Part of the inscription appears in the Corpus as *I. G.*, II<sup>2</sup>, 4209, based on readings by Fauvel and others of his time. The block seen by Fauvel, but not subsequently known to the editors of the Corpus, has come to light again, and a second block preserving the ends of several of the lines has also come out of the great heap of tumbled marbles. A study of the monument is being prepared by Eugene Vanderpool and John Travlos.

<sup>4</sup> Ὁ δῆμος | Κόιντον Λυτάτιον | Κοῖντ (*vacat*). Inventory no. I 3948. Height of letters, 0.032 m. It is curious that the inscription should have been left incomplete. Was it perhaps inscribed in full on the pedestal of the monument?

<sup>5</sup> Münzer in Pauly-Wissowa-Kroll, *R. E.*, XIII, 2, cols. 2082 ff.

as (adopted) citizens of Athens. The two men were related to one another through Queen Stratonike who was sister to Ariarathes and wife first to Eumenes the brother of Attalos and then to Attalos himself. The queen has been tentatively recognized in a great marble statue found in the "Valerian Wall" to the south of the Stoa in 1933.<sup>6</sup> A statue of Karneades, perhaps this one, was well-known in antiquity and is referred to by Cicero in his *de Finibus*, v. 2.<sup>7</sup>

Many of the marbles deriving from the Stoa and subsequently reused in the "Valerian Wall" were found in a very fresh condition, especially those in the foundations of the wall that have lain underground since the third century after Christ. A number of these marbles show unmistakable traces of burning which must, of course, have occurred before the blocks were set in the "Valerian Wall" and which may, therefore, be associated with the Herulian sack of A. D. 267. This is the first positive indication that the Stoa shared the fate of the other buildings of the Agora on that occasion. We may suppose that the great building lay in a semi-ruinous state for a few years between A.D. 267 and the time of building of the "Valerian Wall." To this interval may be ascribed the rude outline of a man's head scratched on the inner face of an orthostate in the south end of the building at a point where it must soon thereafter have been covered by the "Valerian Wall" (Pl. 100b).

Apart from the Stoa of Attalos itself, several other buildings of the Agora have profited from the careful sorting of the great mass of blocks in the area. Many fragmentary marbles from the Odeion have come to light, and at least two wall blocks from the Temple of Ares, one of them furnishing the valuable evidence that this temple, like the sister Temple of Hephaistos, had the vertical joints of its walls leaded through narrow channels cut in the anathyrosis. The greatest gain, however, has accrued to the Middle Stoa. In view of the proximity of the two buildings it was natural that much material from the Middle Stoa should have been used in that section of the "Valerian Wall" built over the ruins of the Stoa of Attalos. Prominent among the newly recovered members are several dozen drums from unfluted poros columns identical with those of the Middle Stoa that remain *in situ* at the east end of the building, a number of architrave and frieze blocks, and fragments from the crowning member of the screen wall that joined the interior columns of the Middle Stoa.

In order to check the condition of the ancient foundations before rebuilding began and also to learn as much as possible about the pre-Stoa history of the area, it was decided to remove much of the ancient earth filling from within the limits of the building (Pls. 98b, 101). This exploration has now been completed in the terrace

<sup>6</sup> T. L. Shear, *Hesperia*, IV, 1935, pp. 385 ff.

<sup>7</sup> The dowel holes show that the statue was certainly of bronze and that the left foot was slightly advanced. Hence there can be no direct connection between this base and the marble statue in the Metropolitan Museum signed by Zeuxis and tentatively identified as of Karneades. Cf. K. Schefold, *Die Bildnisse der antiken Dichter, Redner und Denker*, Basel, 1943, p. 146.



throughout its whole length and in the colonnade over the section that lay in front of the originally planned 18 shops. In a pre-War season the tenth shop from the south had been excavated to permit the examination of pre-Stoa foundations and for the same reason the third shop from the north had been opened up and left exposed by the Greek Archaeological Service. It seems not worthwhile to remove the deep earth filling from within the narrow confines of the remaining shops nor from the area of the colonnade in front of the three northernmost shops that were added to the original plan during construction.

Instead of refilling the vast cavity now opened up beneath the level of the Stoa floor and within the terrace it is proposed to cover these areas with a concrete slab and thus secure spacious basement storerooms at comparatively little cost. The levels should permit of this over approximately one-third of the length of the colonnade and over a slightly larger proportion of the terrace.

From an archaeological point of view the exploration beneath the Stoa has been highly rewarding. The excavation revealed that many of the blocks now missing from the foundations beneath the front steps and the interior columns had been removed in the 10th or 11th century. The resulting holes were refilled with earth on top of which, near the middle of the colonnade, was built a house of which some ruins survived. In the 13th or 14th century a large section of the "Valerian Wall" tumbled westward in the north part of the Stoa and the house was abandoned. Through a close study of the pottery and coins it may be possible to relate these events with some known episode in the stormy history of mediaeval Athens.

The vast mass of earth filling brought in by the Stoa builders has yielded a goodly quantity of pottery and terracotta figurines and, since the lower limit of Attalos' reign (159-138 B. C.) may be taken as a *terminus ante quem* for their deposition, they provide valuable evidence for the chronology of the minor arts in the Hellenistic period.

Beneath the colonnade of the Stoa in front of the eighth and ninth shops from the south lie the ruins of an earlier building that was demolished to make way for the Stoa (Fig. 1). As yet only a suite of two rooms has been exposed, but the north and south foundations continue both eastward and westward into unexplored areas. The foundations of the building and a wall socle  $1\frac{1}{2}$  feet high are of rubble stone work, the upper walls of sun-dried brick. Although no direct evidence is yet available for its identification, the comparatively substantial construction indicates that it was public rather than private and the fact that it was superseded by the Stoa of Attalos would suggest some commercial function. Since pottery from beneath the floor of the building fixes the date of its construction within the first half of the second century, the building had had but a short life when it was demolished by the builders of the Stoa ca. 150 B. C.

The construction of the building just described presupposes the previous dismantling of a still earlier structure the empty foundation trenches of which were over-

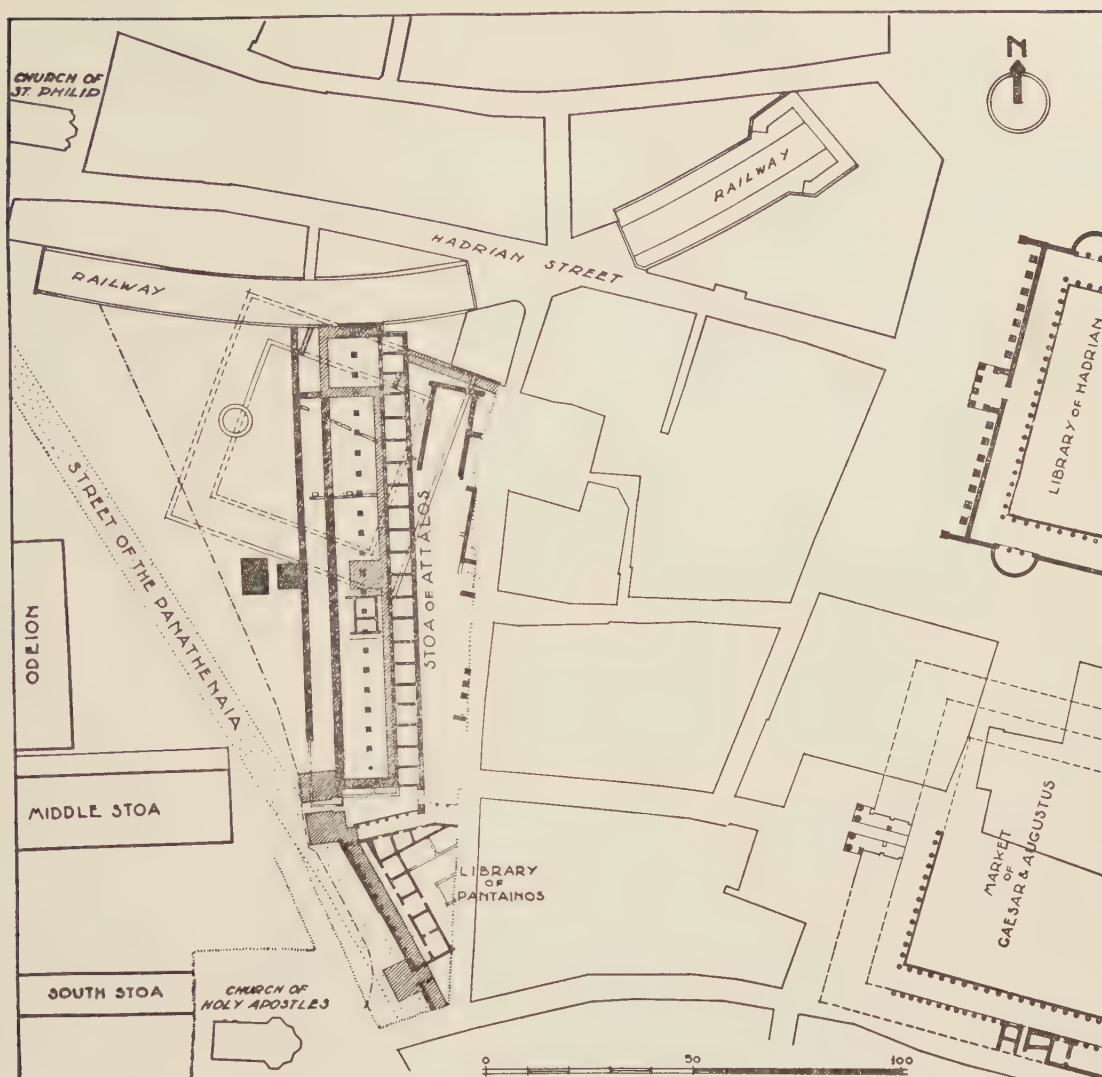


Fig. 1. East Side of the Athenian Agora

laid by the north foundation of the immediate predecessor of the Stoa of Attalos (Fig. 1). This earlier structure had already been partially exposed in pre-War seasons of excavation.<sup>8</sup> Its foundations lie for the most part beneath the north half of the Stoa of Attalos, its floor level *ca.* 3.40 m. below that of the colonnade of the Stoa. The building consists essentially of a great square courtyard, *ca.* 39 metres to the side, surrounded on all four sides by a colonnade *ca.* 9.50 metres wide. No trace has yet appeared of closed rooms back of the colonnade. The floor of the court was carefully prepared of brown clay and was given a gentle pitch toward the north

<sup>8</sup> *Hesperia*, VI, 1937, p. 354; VIII, 1939, p. 213.

so that the drainage from it might be carried beneath the north colonnade by means of two tunnels walled, roofed, and floored with heavy poros blocks.<sup>9</sup> The lower foundations of the building are of conglomerate, its euthynteria of hard gray poros. The materials and workmanship of the building, as also the pottery found beneath its floor, indicate a date in the late fourth or early third century B. C.

It will be observed on the plan (Fig. 1) that the square building differs radically in orientation from the Stoa of Attalos. The line of the north side of the earlier building was undoubtedly given by the street that came in from the Dipylon and bordered the north side of the square. The importance and the persistence of this line is further illustrated by the fact that it also fixed the northern limit of the Stoa of Attalos and even in the late third century after Christ the "Valerian Wall" was laid down on the foundation of the north wall of the square building to the east of the Stoa. That same ancient road must have led eastward to the Library of Hadrian and may be supposed to underlie the modern Hadrian Street, one of the principal thoroughfares in this part of modern Athens.

We have as yet no certain clue to the identification of the square building. The two most likely possibilities are a gymnasium or a market building. In favor of the former is the approximation of the building in the size of its courtyard to such gymnasia as those of Olympia, Epidauros, and Priene. The carefully prepared floor of our building would also be appropriate to a gymnasium, for detailed instructions regarding the maintenance of the floors in the gymnasia of Delphi and Delos are preserved in the inscriptions.<sup>10</sup>

It might be argued, moreover, that the square building of the fourth century B. C. was replaced after the erection of the Stoa of Attalos by the Gymnasium of Ptolemy which was referred to by Pausanias (I, 17, 2) on leaving the Agora (presumably through its east side) as "not far distant from the Agora." There is no direct evidence as to which of the Ptolemies gave his name to this gymnasium, but the collation of a number of indications would point to Ptolemy Philometor (181-145 B. C.). The first certain mention of the gymnasium occurs in an inscription of 122/1 B. C.<sup>11</sup> and it is mentioned again in two other inscriptions of the next century.<sup>12</sup> A mutilated passage in Apollodoros probably mentions the Ptolemaion and, with reference to the years just after the middle of the second century B. C., seems to speak of the opening of schools there for athletes.<sup>13</sup> About the middle of the second century B. C. Athens conferred signal honors on one of the Ptolemies, probably Philometor; a bronze statue of him was to be set up on the Acropolis so that the honors paid him might be evident

<sup>9</sup> The eastern of these two drains is the "fountain beneath the Stoa of Attalos" of W. Judeich, *Topographie von Athen*<sup>2</sup>, Munich, 1931, pp. 201, 355.

<sup>10</sup> E. Norman Gardiner, *Athletics of the Ancient World*, Oxford, 1930, pp. 75, 77.

<sup>11</sup> *I.G.*, II<sup>2</sup>, 1006, l. 19.

<sup>12</sup> *I.G.*, II<sup>2</sup>, 1029, l. 25, and 1043, l. 50.

<sup>13</sup> Jacoby, *Frag. Gr. Hist.*, II B, p. 1036, no. 59 and commentary II D, p. 743.



to all and so that the Athenians might not seem to lack appreciation.<sup>14</sup> The Ptolemaic games, moreover, were apparently celebrated with exceptional pomp in the archonship of Lysiades (148/7 B. C.).<sup>15</sup>

Even if it were established, however, that a gymnasium was built in Athens by a Ptolemy around the middle of the second century B. C. it would seem questionable, in view of the known relations between the Ptolemies and the Attalids, whether the one dynasty would have replaced a building razed by the other.

Another objection to the identification of the square building as a gymnasium is its apparent lack of closed rooms around the courtyard. Although it cannot be said with certainty that there were no such rooms until the areas to the east and west of the Stoa have been more thoroughly explored, the possibility is very remote of there having been adequate accommodation for dressing, washing, teaching, etc., all of which were essential to a gymnasium.

On the whole it would seem preferable to regard the square structure as a market building, an early example of a type that was previously known at Miletos as early as the latter part of the fourth century B. C. and that became increasingly popular in Hellenistic and Roman times.<sup>16</sup> We should thus have to do with a succession of buildings of similar function on the same site, an exceedingly common phenomenon in Athens. One might infer that the lack of closed rooms around the peristyle of the earlier structure (a defect almost as serious in a market building as in a gymnasium) was made good by the inclusion of 42 shops in its ultimate successor, the Stoa. The new building, furthermore, provided in its two floors a length of colonnade fully equal to that of the earlier and in the form of porches of more generous width and of more agreeable outlook.

If the square building be identified as a market place we may assume that it was replaced ultimately not by the Stoa of Attalos alone but also by the closely contemporary group of Middle and South Stoa and the long narrow area bounded by them. In neither the Middle nor the South Stoa is there any trace of closed rooms; these colonnades were presumably intended primarily for practical market purposes, the noise and bustle and smells of which would have been cut off by the screen wall on the mid line of the Middle Stoa from the old square to the north. After the passage of another century even these spacious facilities proved inadequate; they were then supplemented by the Market of Caesar and Augustus which, like the square building beneath the Stoa of Attalos, consisted essentially of a rectangular peristyle set to the east of the Agora.

<sup>14</sup> *I.G.*, II<sup>2</sup>, 983.

<sup>15</sup> *I.G.*, II<sup>2</sup>, 1938. The present argument is not affected by the probability that these games ceased to be celebrated soon thereafter, to be revived again in 103 B. C. Cf. W. S. Ferguson, *Hellenistic Athens*, London, 1911, pp. 369, 435.

<sup>16</sup> A. von Gerkan, *Milet*, I, vi, pp. 88 ff., pl. XXIII; R. E. Wyckley, *How the Greeks Built Cities*, London, 1949, pp. 70, 82 f.

Again on the assumption that the square building was intended for market purposes, it might be regarded as a great step forward in its own day: a means of concentrating and segregating those utilitarian aspects of a market place, the booths and stalls, the fruit, vegetables, fish, flesh, and fowl that consorted ill with the meetings of political bodies, the discussions of the philosophers, the religious ceremonies, and the works of art that were becoming increasingly prominent in the main square.

It was no doubt a feeling for the need of such a division that inspired Aristotle's prescription in the *Politics* (VII, 12, 3-7): "Near this spot should be established an agora such as that which the Thessalians call the 'freemen's agora'; from this all trade should be excluded, and no mechanic, husbandman or any such person be allowed to enter, unless he be summoned by the magistrates. . . . There should also be a traders' agora, distinct and apart from the other, in a situation which is convenient for the reception of goods both by sea and land . . . the upper agora we devote to the life of leisure, the other is intended for the necessities of trade."<sup>17</sup>

That some improvement in practical market facilities was regarded as desirable about the middle of the fourth century is evident from the suggestion of ps. Xenophon (*de Vectigalibus*, III, 13): "If, moreover, dwellings and sales places were to be built for the market people, both in the Peiraeus and in the city, they would at one and the same time provide both an ornament to the city and considerable revenues."

At a depth of *ca.* 0.75 m. below the courtyard floor of the great square building appeared the floor of a still earlier establishment (Fig. 1, Pl. 101b). This lower floor is gravelly, much trodden but less regular than that above. It is bounded to north and south by rough stone walls both of which served in their lower parts as terrace walls to take up the change in ground level which here falls rather rapidly from south to north. The southern of the two walls runs east to west but the other has a northwest to southeast orientation almost identical with that of the great square building and obviously dictated, as in the case of the square building, by the ancient thoroughfare across the north side of the Agora. The walls have been explored thus far only within the area of the colonnade of the Stoa of Attalos and of its terrace; they apparently once continued further in both directions. The maximum dimensions of the area now exposed between the walls is 21 m. from north to south, 19 m. from east to west. An interior wall of later date runs roughly north to south starting from the northern of the two walls noted above and extending about halfway across the intervening area. An entrance led through the northern wall immediately to the east of its junction with this interior wall.

The gravelled area with which we are dealing has the appearance of a much used enclosure open to the sky; there is no trace of roofing. The most striking feature of the establishment is a water line that ran along the south edge of the area at the foot of its southern wall. The water was conducted in a stone trough of which there

<sup>17</sup> Trans. B. Jowett. The *Politics* were put together probably in the 30's of the fourth century.

remains only the imprint in the earth. This channel was interrupted at intervals by stone basins one of which survives intact while its neighbour to the west is attested only by an imprint; these two basins lay *ca.* 8.50 m. apart, centre to centre. The surviving basin is carefully hewn from a large block of gray poros and was set with its lip at ground level, its bottom well below the level of the bottom of the channel.

The date of this earlier establishment is shown by the pottery associated with its foundations to be of the late fifth or early fourth century. Again we must regret the lack as yet of any direct evidence for its identification. Following the same line of argument once more, however, we may conjecture that this structure was a modest predecessor of the great square building and consequently served market purposes. In such a place, of course, running water with convenient dip basins would have been very welcome. Two similar systems with stone channels punctuated at intervals by stone basins are known elsewhere in the Agora, one bordering the west side of the Panathenaic Way, the other running from south to north along the west side of the main square.

Since the south end of the Stoa of Attalos over the length of its first five shops was set down into the rising ground, the Stoa builders planed down the earlier levels and thus caused an unfortunate lacuna in the history of the east side of the Agora.

In the earth filling of the Stoa, beneath the northern part of the colonnade, were found several fragmentary Mycenaean (LH III) vases together with a few scraps of bone: enough to suggest that the Stoa builders in digging their foundation trenches had disturbed a Mycenaean grave similar to several that have come to light in the course of the excavations beneath the main square of the Agora.

A considerable expenditure of effort was required to put in shape the area previously excavated by the Greek Archaeological Society to the east of the Stoa of Attalos (Fig. 1, Pl. 102 a). Throughout the whole length of the Stoa the Society had carried its excavations down to bedrock over an area *ca.* 20 m. wide at the north, *ca.* 10 m. at the south. Toward the east this long narrow strip was bounded by a vertical earth scarp four to eight metres in height along the brow of which ran a modern street. In a half century of exposure the scarp had eroded to the point where it created a great potential hazard to passing traffic; a retaining wall had, therefore, to be built. The construction of this wall had to be adjusted carefully so as to give adequate support to the scarp and yet so as not to discourage utterly the eventual extension of the excavations toward the east. It was decided, therefore, to build a revetment in dry stone masonry chiefly of nondescript ancient blocks. These blocks have been drawn both from the immediate area and from the main Agora square; their removal has disencumbered the excavations and has added greatly to their intelligibility while at the same time the blocks are still accessible and, should the necessity arise, any of them might be extracted for closer examination. Construction was begun at the south end and was approximately half completed within the year.



Before the construction of the retaining wall began, the scarp was cleaned from top to bedrock and the ancient remains which appeared in its face were recorded in a drawn elevation and in a series of photographs (Pl. 102). The most prominent structure here represented is a large building with massive concrete foundations. A north to south length of just over 80 m. is exposed in the excavation cut, and in the narrow strip now accessible appear parts of at least five large compartments. The room at the southwest corner of the building as now known was paved with a marble-slab floor repaired in places with rough mosaic. Parallel to its (now missing) west wall is a series of three Ionic column bases standing on moulded plinths with an interaxial spacing of *ca.* 2.89 m.; on the southernmost base is the shattered stump of a column with a lower diameter of 0.56 m. This may well be part of a peristyle court. Beneath the floor level of the building appears the broken end of a very capacious drain built of rubble stonework with arched top running in an east to west direction.

It will be observed from the plan (Fig. 1) that the building differs markedly in orientation from the Stoa of Attalos so that the line of its west side had to be accommodated to the Stoa by a series of jogs. Its orientation was apparently determined, like that of the square building beneath the Stoa, by the age-old road along the north edge of the square, an orientation that was respected also by the builders of the Library of Hadrian.

The date of the building to the east of the Stoa may be put tentatively in the second century after Christ from the style of the column bases, the nature of the concrete, and the evidence of a little pottery extracted from beneath the marble floor. As to its identification, no direct evidence is yet available. The construction and size of the structure, however, coupled with the presence of the large drain, suggest a thermal establishment and one may speculate as to whether it is not to be associated with the Gymnasium of Hadrian. Pausanias (I, 18, 9), our sole literary authority for that building, unfortunately gives no indication of its position, merely listing it among Hadrian's buildings in Athens; it may, however, be of some significance that in Pausanias' list the Gymnasium follows immediately after the Library, and it will be clear from Fig. 1 that our building, if square in plan, could have been separated from the Library of Hadrian by little more than a roadway.

Apart from the construction of the retaining wall, the area along the east side of the Stoa was thoroughly examined preparatory to its being used as a repository for many thousands of broken marbles that had to be removed from within the limits of the building. Along the east edge of the area, near its middle, in a rough cutting in the bedrock, lay three shattered Mycenaean vases (P 20311-20313; Pl. 100 d); although no skeleton was found, these were undoubtedly the furnishings of another grave like that noted beneath the Stoa. The group comprises a small three-handled jar with a band of hatching on its shoulder, a plain amphora, and a hydria covered all over with thin, dull brown glaze.

## THE STOA POIKILE

Of several by-products that resulted from the first season's work on the Stoa of Attalos the most interesting came through the demolition of a late wall to enable motor trucks to approach the Stoa from the northwest. This wall ran contiguous with an aqueduct intended to carry water from the tail-race of a grist mill near the southwest corner of the Stoa of Attalos in a northwesterly direction across the area of the ancient square. Wall and aqueduct are identical in construction and presumably contemporary in date, contemporary also with the mill, which has been dated in the third quarter of the fifth century after Christ.<sup>18</sup> The late wall had been built in large part of re-used material: architectural members of both marble and limestone, sculpture, inscriptions, etc. The material of immediate interest consists of several score fragments of brown Aeginetan poros, all obviously removed from one and the same earlier building.

All but one of the recognizable architectural members represented by the fragments are of the Doric order: a fluted column drum, an anta capital, architrave, triglyphs, horizontal cornice. The solitary Ionic member is a very small scrap of a column base with which is probably to be associated a scrap of unfluted column shaft. There are besides many pieces of wall blocks and several from the crowning course of a wall. Not a few of the fragments retain traces of painted decoration of normal design and distribution. The pigment was applied directly to the surface of the poros without the intervention of stucco. In the case of the Doric column drum, however, the coarse stone was surfaced with a thin coat of fine stucco. The faces of the wall blocks were finished with the toothed chisel which left shallow striations.

The best preserved of all the members is the Doric anta capital illustrated in Pl. 103 a and b. Although the capital has been re-assembled from over thirty fragments, its design and all its significant dimensions can be recovered with assurance. The capital measures 0.405 m. high, 0.79 m. wide on its broad face, 0.465 m. on the narrow; the wall to which it was attached had a thickness of only 0.40 m. The relation between the capital and wall is such as to indicate that the wall returned some distance along the front of the building before making way for a colonnade. The fascia above the hawkbeak is crowned by a small ovolo. Immediately beneath the hawkbeak is a small astragal, an unusual and interesting touch of Ionicism; beneath this is a fascia bounded below by a narrow taenia; the fascia was painted green. The principal fascia of the capital was covered with a double band of lotus and palmette, the hawkbeak with a tongue pattern.

<sup>18</sup> On the mill cf. A. W. Parsons, *Hesperia*, V, 1936, pp. 70-90. Wall and aqueduct are indicated by one heavy black line on the plan of the Agora: *Hesperia*, IX, 1940, pl. 1.

The taenia at the top of the architrave is crowned with a hawksbeak, an apparently unique phenomenon which is only approximately paralleled by an ovolo crown in the Stoa of Zeus in the Athenian Agora and in the Temple of Amphiaraos at Oropos.<sup>19</sup>

The triglyph measures *ca.* 0.48 m. in width, i. e. one fifth greater than the triglyph of the Stoa of Zeus. In its sides are slots for the metopes, of which nothing else has come to light.

The best evidence for the date of the building is provided by the mouldings, especially those of the anta capital. They are appreciably earlier in type than those of the Parthenon; they are close to the mouldings of the Hephaisteion and have some affinity also with those of the Treasury of the Athenians. The painted ornament is not far removed from that of the Hephaisteion. The working of the wall blocks may be closely paralleled in the Athenian Tholos (*ca.* 470 B. C.) and the lifting holes in the tops of some of the members are reminiscent of those in the Temple of Aphaia on Aegina. A date in the neighborhood of 460 B. C. would seem to satisfy these various indications.<sup>20</sup>

It has not yet been possible to assign these *membra disiecta* to a foundation. The presence in one place of so many fragments from so many different members of the same building would imply, however, that the original building stood close by. The place of finding, as noted above, was to the west of the mid part of the Stoa of Attalos. For a building of the scale indicated by the fragments no position is available to east, west or south. The north remains, and this brings us to the locality to which we had long since assigned the Stoa Poikile on the basis of the literary evidence.<sup>21</sup> The other evidence that may be adduced from the newly found fragments would also accord with their attribution to this famous building. The use of limestone rather than marble, the combination of the Doric and Ionic orders, the peculiarity of the plan as indicated by the surviving anta capital would all be consonant with the identification of the building as a stoa. The date of the building, the high quality of its workmanship, and its scale are precisely what we should have expected in the Stoa Poikile.

The attribution is greatly strengthened by a peculiar feature of the wall blocks (Pl. 103c). At intervals in the faces of the fragmentary blocks appear many drilled holes, in some of which still remain the rusted stumps of iron pins of the diameter of a lead pencil. It would seem probable that these pins are to be connected with the paintings known to have been executed in this building by Polygnotos, Mikon and Panainos: Theseus and the Amazons, the Capture of Troy, the Battle of Marathon,

<sup>19</sup> L. T. Shoe, *Profiles of Greek Mouldings*, Cambridge, Mass., 1936, p. 170.

<sup>20</sup> I am indebted to Miss Lucy T. Shoe for comments on the mouldings. Miss Shoe will prepare a more detailed publication of the building.

<sup>21</sup> Cf. most recently E. Vanderpool, *Hesperia*, XVIII, 1949, p. 130, fig. 1, and p. 136.



the Battle of Oinoe. Bishop Synesius, mentioning these paintings in letters written about A. D. 400 (*Epist.* 54 and 136), referred to them as on *sanides*, a word which means wooden tablets. Such tablets could well have been supported on a grid of wooden scantlings secured to the wall by means of iron spikes. The arrangement indicated by the spikes in the newly found blocks may seem flimsy in comparison with the more organic connection of grid and stonework known in the pre-Mnesiclean Propylaia on the Acropolis,<sup>22</sup> but it is readily explicable through the known circumstance that in the Stoa by the Agora the paintings were an after-thought, so much so that the building was originally called after its builder the Stoa Peisianax and only later, after the paintings had been added, did it come to be called the Stoa Poikile, the Painted Porch.<sup>23</sup> Lest hopes rise too high it should be recalled that Bishop Synesius reported that the famous paintings had already been carried away by a proconsul at the time of his writing.

If now we imagine this colonnade, of good construction and with its splendid paintings, standing at the north edge of the square, closed against the north wind and open to the south, we can readily appreciate how it came to be the most popular resort around the Agora, giving its name first to a group of poets who spent their time in its shelter and subsequently to the philosophy that was expounded in the fourth century B. C. by another of its habitués, Zenon of Kition.<sup>24</sup>

It would be exceedingly desirable to fix the foundations of the building. This might be done by making a sounding to the north of the railway. The line of the Stoa Poikile once established would undoubtedly give also the northern limit of the market square.

#### AREA TO THE WEST OF THE AREOPAGUS

In order to complete his study of the district of private houses and shops to the southwest of the market square proper, Mr. Rodney S. Young carried out a certain amount of supplementary digging in the spring and summer of 1949. Since his report will appear shortly in *Hesperia* it need not be anticipated here.

Miss Margaret Crosby in the spring and again in the autumn of 1949 continued the difficult task of disentangling the remains of the large structure of the fifth century B. C. at the northwest foot of the Areopagus that has been tentatively identified as a lawcourt. It is hoped that this building may be studied and published in conjunction with another of the same type to the south of the Tholos, so that here again there is no need to anticipate.

<sup>22</sup> W. B. Dinsmoor, *apud* M. H. Swindler, *Ancient Painting*, New Haven, 1929, p. 424, note 14a; *Studies in the History of Culture*, 1942, pp. 185 ff.

<sup>23</sup> Plutarch, *Kimon*, 4; Diogenes Laertius, VII, 5.

<sup>24</sup> Diogenes Laertius, VII, 5.

The definitive exploration of this vast area is thus almost finished. There remains, however, a small area in need of deeper excavation on either side of the Great Drain at the northwest foot of the Areopagus; the present ragged edge of the excavation toward the Theseum Square should also be regularized. The wealth of evidence for the early history of Athens that may be gathered from the thorough exploration of almost every square metre in this region is well illustrated by the following.

Toward the end of the season of 1948 the cremation burial of a woman of the early Geometric period, distinguished by two pairs of terracotta boots, was discovered at the extreme northwest foot of the Areopagus.<sup>25</sup> Inasmuch as graves of this period and in this general area have been found more commonly in groups than individually, there was reason to hope that other graves might come to light in the immediate neighborhood. It was decided therefore to clear the adjacent area down to bedrock. The excavation was supervised by Mrs. Evelyn Lord Smithson and was financed by contributions from members of the American Mission to Greece who had attended the course of lectures offered by the School during the preceding winter. Much of what follows is based on Mrs. Smithson's account of the undertaking.

The total area explored was less than 100 square metres, yet it proved to be exceedingly fertile. Among the structural remains are foundations of house walls of the sixth and fifth centuries B. C. with which are associated traces of metal working, in particular fragments of clay moulds for bronze casting, which suggest that we have to do with a northward continuation of the large area of workshops previously explored to the west of the Areopagus.

Beneath the house foundations appeared the mouths of two burial pits of the Geometric period both of which proved to be quite intact. One of the burials was that of a craftsman-warrior. His ashes rested in a large amphora which stood upright in a small pit surrounded by four smaller vases and by a selection of iron tools and weapons. Into the mouth of the pit had been thrown the remnants of the funeral pyre, among them two more fragmentary vases and carbonized remains of figs and grapes. In shape and decoration the vases stand at the point of transition from the Proto-geometric to the Geometric style, i. e. ca. 900 B. C. In this respect, as also in the number and variety of its furnishings, the burial proves to be one of the most informative of the period thus far found in Athens.<sup>26</sup>

The second grave of 1949 contained the pithos burial of a child of ten months (Pl. 104c).<sup>27</sup> The body had been placed in a large plain jar which rested on its side at the bottom of the pit, its mouth closed with a stone slab (Pl. 104a). Beside the large jar stood a pitcher of coarse plain ware, its walls blackened by fire. Inside the

<sup>25</sup> Cf. R. S. Young, *Hesperia*, XVIII, 1949, pp. 275 ff.

<sup>26</sup> This grave group will be published shortly by Professor Carl W. Blegen.

<sup>27</sup> The age was determined by Dr. J. Lawrence Angell on the basis of the stage of development of the skull and bones.

burial urn together with the skeleton rested eight small vases, several of them obviously miniatures in keeping with the tender age of the child, and all of different shape (Pl. 104b). Six of the group are decorated in a developed Geometric style by a very careful hand; two of the little bowls, however, were treated in the crude and sketchy manner characteristic of the "Phaleron Style." A date toward the end of the eighth century is indicated.<sup>28</sup>

The two graves found in 1949 together with the one of 1948 constitute a compact group (the intervals between the pits being not more than three metres) set in one of the angles formed by two intersecting roads: a logical disposition for a family burial plot. The interval of close on two centuries between the earlier and the later interments was perhaps filled by intermediate burials now represented by empty cuttings in the bedrock and by scattered sherds of large Geometric vases.

#### SCULPTURE AND METALWORK

A life-sized marble head of a dreamy young man was recovered from the same late wall in the northeast quarter of the Agora square that yielded the fragments of the Painted Stoa (Pl. 105a).<sup>29</sup> Beard and moustache are rendered by stippling with a fine point; the hair is treated like a skull cap with an abrupt termination above the brow; the individual locks are worked out by furrowing in a wavy pattern. The soft modelling of the flesh results in a weak and puffy effect.

The head does not yield readily to classification. The handling of the flesh, however, is reminiscent of the portraits of Gordianus II (A. D. 238-244) and the combination of stippled beard with an abrupt angular hair line may likewise be paralleled in the years just before and around the middle of the third century.<sup>30</sup> For the rendering of the hair it would be difficult to suggest a precise parallel either in this period or later. A date near the middle of the third century would harmonize with the circumstances of finding. The wall in which it was incorporated is to be dated, as we have

<sup>28</sup> This group has much in common with those from the later burials in the cemetery to the south of the Tholos published by R. S. Young in *Hesperia*, Supplement II, 1939, especially burials VII and IX.

<sup>29</sup> S 1406. Height including tenon, 0.405 m. Pentelic marble. Split from top to bottom down the proper left side. The head was worked separately for insertion in a draped torso.

<sup>30</sup> For the hair line cf. especially portraits of Maximinus Thrax (A. D. 235-238) (A. Hekler, *Greek and Roman Portraits*, New York, 1912, fig. 291a; H. P. L'Orange, *Studien zur Geschichte des spätantiken Porträts*, Oslo, 1933, fig. 4). A close parallel for the stippling of the beard and for the still more distinctive treatment of the eye-brow is available in the bronze statue of Trebonianus Gallus (A. D. 251-253) in the Metropolitan Museum of Art (G. M. A. Richter, *Roman Portraits*, New York, 1948, No. 109). There is obviously some connection between our head and the two heads in the National Museum at Athens illustrated by L'Orange, *op. cit.*, figs. 53-57 and dated by him to the time of the Tetrarchy, ca. A. D. 300 (pp. 27 f.). That the pair of heads is later in date is suggested by the greater prominence of their eyes and thickness of their eyelids and by the coarseness of their features.



seen, in the 5th century after Christ, yet it contained many fragments of other sculpture and of inscriptions that had undoubtedly been damaged in the Herulian sack of A. D. 267. If we suppose that our statue likewise was knocked down in that year we have a ready explanation for its remarkable freshness, extending even to traces of red paint on the lips. A date intermediate between A. D. 267 and the time of construction of the wall is unlikely inasmuch as there is little or no evidence of building of a public nature in the area between A. D. 267 and *ca.* A. D. 400. The date suggested above should be regarded as tentative, however, until such time as the chronology of portrait sculpture in Greece in the late Roman period is put on a firmer basis.

The five bronze statuettes illustrated in Pl. 106a were found in a well connected with a small bathing establishment in the bottom of the valley to the west of the Areopagus, in a context probably to be associated with the Herulian sack of A. D. 267. They are in general remarkably well preserved, three even retaining their ancient bases; wooden bases have been supplied to the other two. All five represent divinities: Aphrodite, Eros, Harpokrates, Telesphoros and Eirene.<sup>81</sup>

The bronzes fall into two groups. The first, comprising Aphrodite and Eros, is distinguished by soft modelling, unpierced eyes and a metal that has lost much of its surface; these two pieces may be as early as the first century after Christ. The remaining three figurines have kept a hard, glossy surface; the pupils of their eyes are pierced and their modelling would suggest a date in the third century.

The Aphrodite is of a familiar type that may be traced back to the second half of the fourth century. The goddess is represented at her toilette, adjusting her hair with the help of a (now missing) mirror held in the right hand. She stands on a circular base which in its proportions and in its mouldings closely resembles a typical well head of the fourth century:<sup>82</sup> perhaps an allusion to the source of the bath water, comparable, that is, with the water jar at the side of the Cnidian Aphrodite.

The Eros may be restored, on the analogy of the well-known Eros in the Metropolitan Museum,<sup>83</sup> with a torch in his outthrust left hand. The long tendril held in the right hand probably once rose above the head to end in a support for a lamp; such tendrils are common in the candelabra of Pompeii.<sup>84</sup>

Harpokrates, the Helleno-Egyptian godlet, is here represented with cornucopia

<sup>81</sup> Aphrodite (B 881): height of figure, 0.178 m., with base, 0.221 m.; Eros (B 882): height of figure, 0.116 m.; Harpokrates (B 883): height of figure, 0.096 m.; Telesphoros (B 884): height of figure, 0.067 m., with base, 0.083 m.; Eirene (B 880): height of figure, 0.141 m., with base, 0.189 m.

<sup>82</sup> Cf. M. Lang, *Hesperia*, XVIII, 1949, pp. 114 ff., pl. 7.

<sup>83</sup> G. M. A. Richter, *Greek, Etruscan and Roman Bronzes*, New York, 1915, No. 131, pp. 85 ff.; cf. also No. 228, pp. 119 f.

<sup>84</sup> F. B. Tarbell, *Catalogue of Bronzes, etc. in Field Museum of Natural History*, Chicago, 1909, Nos. 67-73.

as a genius of fertility. Assimilation to Dionysos is suggested by the fawn's skin worn over the left shoulder.<sup>35</sup>

The third godlet of the group is appropriately marked by his hooded cloak as Telesphoros, the youthful associate of Asklepios who watched over convalescence; he is occasionally represented in Greek terracottas and lamps as well as bronzes especially from the third century after Christ and later.<sup>36</sup> His pedestal has the scheme of an Ionic base.

Perhaps the most interesting of the five bronzes is the second goddess who is complete save for the sceptre that is attested by a scar on the right forearm. The figure stands on an elaborately turned base reminiscent of the bronze fittings of Pompeian furniture.<sup>37</sup> In her left hand she supports a cornucopia filled with fruit and crowned by a crescent. She is clad in a voluminous peplos, belted at the waist and with a long overfall; part of the back overfall has been drawn up over the head. On her head is a stephane decorated with rosettes.

The statuette is obviously a free adaptation of the Eirene of the group of Eirene and Ploutos made by Kephisodotos for the Athenian Agora.<sup>38</sup> The child Ploutos, who originally shared the goddess' left arm with the cornucopia, has been dropped from the composition and the cornucopia has been correspondingly enlarged. The goddess has drawn her garment up over her head and has assumed the stephane. She has, however, retained her massive build, her firm stance and the general scheme of her drapery characterized especially by the heavy folds that cut obliquely across her chest.<sup>39</sup>

Along with her artistic type and two out of three of her original attributes, the goddess may be presumed to have retained also her original name: Eirene (Peace). This personification is common on the Roman imperial coinage of the second and third centuries, i. e. the period of our figurine. On the coins the goddess retains much the same dignified, heavily draped type and she still carries among her most common attributes the cornucopia and the sceptre.<sup>40</sup>

In previous reports it has been pointed out that many of the buildings of the Greek period in the area to the west of the Areopagus were occupied by artists and

<sup>35</sup> For a similar type in terracotta and for the literature cf. D. Burr, *Terracottas from Myrina*, 1934, p. 39, No. 18.

<sup>36</sup> Cf. R. Egger, "Der hilfreiche Kleine im Kapuzenmantel," *Jahreshefte*, XXXVII, 1948, pp. 90 ff. There is another miniature example in bronze in the Agora collection: B 384, closely similar in type but less well preserved.

<sup>37</sup> E. g. Tarbell, *Catalogue of Bronzes in Field Museum*, figs. 19-22; C. Ransom, *Studies in Ancient Furniture*, Chicago, 1905, pls. VIII-X, XVIII; G. M. A. Richter, *Ancient Furniture*, Oxford, 1926, figs. 308-311.

<sup>38</sup> G. M. A. Richter, *Sculpture and Sculptors of the Greeks*, New Haven, 1930, pp. 255 f., figs. 659-663; G. E. Rizzo, *Prassitele*, Milan-Rome, 1932, pls. I-IX.

<sup>39</sup> Both in type and style our figurine has much in common with the Juno of the Staatsmuseum in Vienna (K. A. Neugebauer, *Antike Broncestatuetten*, Berlin, 1921, p. 113, fig. 59).

<sup>40</sup> Cf. H. Mattingly, *Roman Coins*, London, 1928, p. 165, pl. XLII, 12-14.



artisans, among them metalworkers. Additional evidence of the activity of such metalworkers is forthcoming from the past season in the shape of an ancient clay impression taken from fine metalwork (Pl. 106b). Impressions of this sort, already well represented in the Agora, were principally made, no doubt, to record outstanding pieces of design for subsequent copying and adaptation.<sup>41</sup> Last season's impression was taken from a helmet, apparently of Attic type; it shows one of the lower angles of the helmet including part of the neck guard and the spring of the cap.<sup>42</sup> The angle was filled by the figure of a helmeted youth with staff or spear in hand reclining against a herm over the base of which he has thrown his cloak. The shaft of the herm presumably formed the vertical edge of this part of the helmet, i. e. the part immediately behind the ear, while the ledge that supports herm and youth constituted the flaring lower part of the neck guard. The lower edge of the guard is strengthened by means of a double moulding and the guard is set off from the convex cap by a step. A design of tendrils and flowers spreads over the cap. The easy and masterly modelling of the figure finds its best parallels on the bronze mirror cases of the middle and later fourth century.<sup>43</sup> Although relief decoration of this type is more commonly found on the cheek plates of Attic helmets, a scheme of decoration like that indicated by our piece is well attested on the coins of Thourioi dating from the fifth and fourth centuries.<sup>44</sup> It may also be matched on the splendid helmets worn by "Alexander" on the great cameos in Vienna and the Hermitage.<sup>45</sup> Our fragment is a tantalizing echo from one of the most splendid Greek helmets known to us.

A second clay impression may also derive from metal-work but is more likely from terracotta (Pl. 106c).<sup>46</sup> The surviving piece represents an excerpt from a zone of figures that must once have encircled the wall of a small round vessel with an abrupt shoulder, in all likelihood a squat lekythos of a type popular in Athens in the fourth century.<sup>47</sup> The wall is bordered above by a band of bucrania and rosettes in alternation. In the field are preserved parts of two figures. The one is marked as a goddess by a sceptre held in the left hand, perhaps also by a stephane; she wears chiton, cloak and necklace and raises her right hand to her shoulder. To the right remain traces of a second standing figure: an elbow and a thigh. The attributes and

<sup>41</sup> Cf. Dorothy Burr Thompson, *Hesperia*, VIII, 1939, pp. 285-316, "Mater Caelaturae."

<sup>42</sup> T 2930. Height, 0.099 m.; width, 0.084 m. The impression is complete save for small chips.

<sup>43</sup> Cf. W. Züchner, *Griechische Klappspiegel (Jahrbuch, Ergänzungsheft XIV)*, Berlin, 1942, *passim*; for the herm cf. fig. 6 and pl. 13.

<sup>44</sup> Cf. for example P. Gardner, *The Types of Greek Coins*, Cambridge, 1883, pl. V, 17; C. Seltman, *Greek Coins*, London, 1933, pl. XVIII, 7.

<sup>45</sup> A. Furtwängler, *Antike Gemmen*, Leipzig and Berlin, 1900, pl. LIII. Cf. also E. Babelon and J. A. Blanchet, *Catalogue des Bronzes Antiques de la Bibliothèque Nationale*, Paris, 1895, No. 2023.

<sup>46</sup> T 2950. Height, 0.082 m. The edge of the impression that has cut through one of the two figures is original; the other edges are broken.

<sup>47</sup> Cf. F. Courby, *Les Vases Grecs à reliefs*, Paris, 1922, pp. 133 ff., pls. IV and V.



the self-conscious pose of the better preserved figure would be appropriate to Hera in a Judgment of Paris scene, and the five or six figures that commonly constitute the Judgment scene would nicely fill the wall.<sup>48</sup> Stance, drapery, coiffure and exquisite workmanship would suggest a date near the middle of the fourth century.

An attractive piece of actual metalwork comes from a cistern abandoned in the late Hellenistic period at the western foot of the Areopagus (Pl. 105b). It is a three-nozzled lamp of delicate lines and very competent craftsmanship.<sup>49</sup> Lamps of much this same type were still in use in the Campanian cities at the time of the eruption in A. D. 79.

### VASES

Outstanding among the season's pottery are several red-figured pieces found to the west of the Areopagus. The most complete is an oinochoe from the area above the graves of the geometric period at the northwest foot of the Areopagus (Pl. 107).<sup>50</sup> On the front of the vase Nike flies down to right. She wears a long foldless chiton with bell sleeves, on her head a stephane; the ends of her hanging hair are gathered in a bag. In her two hands she holds out a sash, in her left she carries also a pitcher and a spray of ivy. The master has been recognized as the Painter of the Yale Lekythos.<sup>51</sup>

From approximately the same place as the Nike oinochoe, i. e. the northwest foot of the Areopagus, came two tantalizingly small but characteristic fragments of a red-figured calyx krater by the Kleophrades Painter.<sup>52</sup> The one scrap preserves the forepart of an old man's head, hair and beard white, mouth open, sceptre (?) in the field. On the other piece remain the right arm and side of a man clad in a chitoniskos and chlamys; the set of the arm suggests that he is about to thrust a weapon.

This season's work in the valley to the west of the Areopagus added several more fragments to a series from another calyx krater by the Kleophrades Painter that has been coming out over the past several seasons, sadly broken and scattered widely in levels of the early fifth century.<sup>53</sup> The best preserved figure is Achilles, sitting in

<sup>48</sup> The suggestion comes from Miss Lucy Talcott. For the Judgment of Paris on a Megarian bowl cf. Courby, *op. cit.*, p. 388, fig. 80.

<sup>49</sup> B 876. Height, 0.06 m.; diameter of body, 0.075 m.; maximum span, 0.208 m. There is a well defined foot and no trace of attachments for suspension.

<sup>50</sup> P 20076. Height as restored, 0.215 m.; diameter, 0.18 m. Put together from many fragments; the base is restored. Partial relief contour; glazed inside to the bottom of the lip only.

<sup>51</sup> The attribution is by Beazley and the piece is recorded in *Paralipomena to Attic Red-Figure Vase-Painters*, p. 446: "add as No. 61 bis."

<sup>52</sup> P 20244. The attribution, made by Peter Corbett and G. R. Edwards, is confirmed by Beazley: *Paralipomena to A.R.V.*, p. 123: "add as No. 33 bis."

<sup>53</sup> P 18278. Beazley, *Paralipomena to A.R.V.*, p. 123: "add as No. 33 ter." This attribution also was suggested by Corbett and Edwards, and additional fragments have been added by B. B. Shefton. It seems possible that the head, *Hesperia*, XVI, 1947, pl. 47, 2 (*Paralipomena to A.R.V.*, p. 124: "add as No. 34 bis") may likewise belong.

retirement, brow on hand. Other scraps preserve parts of a battle scene. In style these pieces somewhat recall the same painter's calyx krater in New York, but may be slightly later, say 490-480 B. C.

The Agora collection contains fragments of still another calyx krater and of a psykter by the Kleophrades Painter,<sup>54</sup> "the greatest pot-painter of the late archaic period." These will be studied as a group and presented in a later number of *Hesperia* with adequate illustrations.

#### INSCRIPTIONS AND OSTRAKA

The season's work yielded over one hundred inscriptions on marble, a large proportion of them coming from the demolition of the wall of the late Roman period to the west of the Stoa of Attalos which preserved the fragments of the Stoa Poikile; others were found in the area of the Stoa of Attalos whither most of them had been carried by the builders of the "Valerian Wall".

Among the new inscriptions may be noted a fragmentary list recording sales of confiscated real-estate and dating from the early fourth century B. C. (I 6225). This fragment is apparently distinct from the similar documents previously found (e. g. *Hesperia*, V, 1936, p. 391; XV, 1946, p. 181). The extensive category of inscriptions on which were recorded the leases of the Laureion silver mines, recently published in a comprehensive study by Miss Margaret Crosby (*Hesperia*, XIX, 1950, pp. 189 ff.), has been enlarged by two more fragments, one dating from the middle of the fourth century B. C., the other from the third quarter of the fourth century (I 6149, 6168). A fragmentary stele of early Roman date deals with the handing over of certain articles of silver and other objects, including pairs of skyphoi (I 6159).

Among several inscribed marbles found actually incorporated in a tower of the "Valerian Wall" near the middle of the Stoa of Attalos may be mentioned the fragmentary base of a monument erected by Attalos II of Pergamon in honor of one Theophilos, his syntrophos or foster brother, possibly to be identified with another Pergamene of the same name who was already known to have been honored with the proxeny by the Athenian people.<sup>55</sup>

Here also came to light a fragment of a *kleroterion* or allotment machine that joins with a group of pieces found earlier in the Agora excavations in the area of the Odeion, i. e. in the region of the old Orchestra where some at least of the sortition for jury service appears to have taken place (I 2539, I 2716).

<sup>54</sup> Beazley, *A.R.V.*, p. 124, no. 39 and p. 125, no. 59, respectively.

<sup>55</sup> The new fragments join others found in the excavations of the Greek Archaeological Society in 1860. Inv. No. I 3527 + 3601: Βασι]λεὺς Ἀτταλος Βα[σιλέως Ἀττάλου] | καὶ Βασι[λ]ίσ[σ]ης Ἀ[πολλόνιδος] | [Θ]εόφιλον Θε[- - -<sup>ca</sup> - - -] [.ᾶ] Ε[-] | [τ]ὸν αὐτοῦ σύντροφον ἀρετῇ[ς] ἐνε[κεν] | [τῇ]ς εἰς αὐτὸν καὶ [τ]ὸν δῆμον τὸν Ἀθηναίων. For the proxeny decree cf. *I.G.*, II<sup>2</sup>, 947.

The Agora collection of ostraka was again substantially enlarged, especially through the removal of a little filling that had previously been left in the pit at the northeast foot of the Hill of the Nymphs in which 491 ostraka were found in 1947.<sup>56</sup> The final clearing brought out 40 more ostraka complete or fragmentary. All bear known names. Among them is a complete specimen with the name of Aristеides (written with double sigma!) scratched on the inside of a rim fragment of a black-figured krater. One of the Themistokles ostraka is on a scrap of a red-figured kylix. From the same pit came another fragment of a handle found in 1947 on which the name Kallixenos was not incised but carefully painted in black glaze and fired; though scarcely designed as an ostrakon, the piece would seem to have been used as such.

From deep beneath the Stoa of Attalos comes one of the few ostraka found in the Agora elsewhere than in the western or southwestern parts; it bears the name Sokrates Anagyrasios, a man who is otherwise known to have been a general in the Samian War 441/40 B. C. (Pl. 105c).<sup>57</sup> This is the first occurrence of his name among the ostraka.

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<sup>56</sup> *Hesperia*, XVII, 1948, pp. 193 ff.

<sup>57</sup> P 20325. Androtion *apud* Schol. Aristid. III 485 Dindorf = *Frag. Gr. Hist.*, IV, 645.



# GREEK MOULDINGS OF KOS AND RHODES

(PLATES 108-109)

## I. INTRODUCTION

IT WAS regrettable that it had not been possible to make drawings of the Dodecanesian material to include in the study of the profiles of Greek architectural mouldings published by the American School of Classical Studies at Athens in 1936.<sup>1</sup> Later opportunity arose<sup>2</sup> to make the drawings, full size with a Maco Template,<sup>3</sup> but their study was unfortunately delayed.<sup>4</sup> The material is presented now as a supplement to the original volume.

Considerations of printing have, however, made advisable certain changes in form as well as format, but it is hoped that this article may be used with the earlier publication without inconvenience, for the material in the two belongs together. It has not been possible to print all the profiles full size as in the original study, but Figure 1 is retained at full scale. It should be noted, then, in making comparison, that all the other profiles here presented, in Figures 2 through 8, are shown at one-half size. Information and comment regarding each profile, formerly presented in tabular form, is here put into catalogue form. All the same information given previously is included except the proportions. These were published originally as part of the proof of the chronological development noted in each type. Since the general lines of development appear now to have become established, it has not been considered essential to record the proportions.

Only two of the Twelve Islands have yielded as yet any considerable Greek architectural remains. Rhodes, with its numerous settlements, was an important seat of

<sup>1</sup> L. T. Shoe, *Profiles of Greek Mouldings*, 1936, hereafter referred to as *PGM*.

<sup>2</sup> As fellow of the American Academy in Rome in 1936-37, it was possible for me to make drawings of Greek mouldings in South Italy, Sicily, and the Dodecanese. It is a pleasure to acknowledge my indebtedness to the Academy for this opportunity, for all the facilities, assistance, interest and encouragement offered me in the collection and early study of the material, and now for the kind permission to publish the Dodecanesian material which belongs with that of Greece, the Aegean islands and Asia Minor in the journal of the School at Athens under whose auspices the original study was made and published. The western profiles of Sicily and South Italy are also ready for publication and will appear elsewhere, under the auspices of the Academy.

<sup>3</sup> *PGM*, p. 3.

<sup>4</sup> I owe to the Institute for Advanced Study at Princeton the opportunity, as a member for 1948-49, to prepare this material for publication. With pleasure I express my gratitude for the facilities put at my disposal, for the unfailing interest and assistance, both material and intellectual, generously afforded me by the Institute and its staff.

Greek civilization from the Bronze Age on, but little or no architectural material survives from the earlier centuries of Greek building and no mouldings earlier than the 4th century have been discovered. The buildings of Rhodes itself, of Ialysos, Lindos, and Kameiros, as we see them today, date from the 4th, 3rd, and 2nd centuries. On Kos, the earliest preserved architectural monuments are the Charmyleion<sup>5</sup> from the end of the 4th century and the 3rd century buildings in the great Asklepios sanctuary, but the bulk of the material from both the Asklepieion and the city is of the 2nd century. That earlier very fine structures once existed, as the history of the island would suggest, is proved by a few unidentifiable but datable fragments found collected in the Castle of the Knights, which serves as a museum and storehouse for antiquities collected on the island.

Since both Rhodes and Kos were essentially Dorian settlements, the Doric architectural style was probably regular from early times. Certain it is that temples and other buildings of the 4th century on Rhodes are of the Doric order. Kos, on the other hand, seems always to have been more closely associated with her mainland neighbors and to have used the Ionic style as well as the Doric. There is clear evidence for an Ionic building in the late 6th century as well as a tomb of the Ionic order in the late 4th century. By the 2nd century the Doric order had been adopted by Ionian cities and was used interchangeably with the Ionic, and Dorian cities of the mainland had taken up Ionic along with Doric. The two orders appear side by side in Kos and Rhodes in the 3rd and 2nd centuries as in other Hellenistic cities.

The mouldings preserved from the two islands, then, are typical of the conditions above noted. They fit into the general scheme of Greek mouldings as revealed in the extensive study and do not alter any of the trends of development or general conclusions of that study.<sup>6</sup> Where there is other evidence for dating the buildings, these profiles tend rather to confirm the tendencies and characteristics already noted. It is presumably safe, therefore, to suggest dates for pieces in the Dodecanese on the basis of comparison with material from the rest of the Greek world. Dates have been suggested for unidentified pieces and certain changes from earlier published dates have been offered.

## II. TYPES OF MOULDING

The forms of the several types of moulding used in Kos and Rhodes fit the general development of types in the rest of the Greek world. All can be paralleled among pieces from mainland Greece, Asia Minor or the Aegean islands. There are no new or local forms, although some new combinations appear.

<sup>5</sup> Unfortunately, it was not possible to make drawings of the mouldings of this very significant Ionic building. References will be made to their publication by Schazmann in *Jahrb.* XLIX, 1934, pp. 110-127.

<sup>6</sup> *PGM.*

## HAWKSBEAK

The regular Doric profile, the hawksbeak, appears as usual for geison crown and pier capital of the Doric order.

Only 4th and one 3rd century hawksbeaks survive. Of the five forms developed in the 4th century (*PGM*, pp. 105-6, 166), only two are found here: the ovolo type with a *shallow* upper curve and small undercut (**1**, 1, 7<sup>6a</sup>), and, more commonly, the ovolo type with receding corona (**1**, 2-6). The cyma reversa type, characteristic especially of the 2nd half of the 4th century and later, does not occur. Its absence is to be noted particularly in the pier capital of the Lower Terrace Stoa of the Asklepieion at Kos (**1**, 7). The building is dated by the excavators in the 1st half of the 3rd century, by which time we should expect a cyma reversa type hawksbeak on the analogy of other 3rd century buildings. The Ionicism of the base astragal in this profile is also noteworthy. Other instances of influence from near-by Ionia will be observed at Kos.

## CYMA RECTA

The cyma recta appears chiefly, as always, as a sima. It is the regular sima for both orders from the 4th through the 2nd centuries. All three types (*PGM*, p. 92) occur. The 4th century forms are all (**2**, 1-3) but one of the vertical type cyma (Type A), in fact some are practically cavettos with no clear indication of the reverse curve (see below pp. 344, 345). The other one (**2**, 6) inclines out but the lower curve is so slight as to be tangent to the diagonal (Type B). Note that in 4th century simas from elsewhere (all Ionic) Type B is most common. It is understandable that when the Ionic cyma recta was used for the Doric order in Rhodes (earlier than elsewhere save for rare Periklean Athenian examples), it would be the simplest, therefore, vertical form that was adopted. Type B is favored in the 3rd century (**2**, 7-10) as elsewhere, but forms with a decided reverse curve are definitely preferred in the 2nd century (**2**, 11-13; **3**, 1-6), either with a vertical axis, preferred at Kos, or with a diagonal axis (Type C). The astragal crown of **2**, 4 is unique. There is always a fascia at the base between the bottom of the cyma recta or cavetto and the hawksbeak or ovolo geison crown. This may be set either in front (**2**, 5-10, 13) or back from (**2**, 1, 2, 11, 12; **3**, 2-11) the sima curve above it. The set-back fascia in Type A is not found elsewhere. Ornament on the cyma recta is more rare than usual for the sima (*PGM*, p. 92); only one, a 4th century sima (**2**, 3), carries the appropriate lotus and palmette.

The cyma recta is used three times instead of the more usual cavetto to crown an ovolo on what are probably crowns of altars or monumental bases (**4**, 6, 7, 8). They carry the proper lotus and palmette ornament.

<sup>6a</sup> Boldface numbers refer to figures, plain numbers to individual profiles as numbered in the figures.



Very rarely is the cyma recta used as a base moulding in Greek times (*PGM*, p. 99); there is one example from Kos (7, 10); it is uncarved.

#### OVOLO

The ovolo appears for the usual positions and in the forms both rounded and straight-sided, carved and uncarved, that are comparable to contemporary forms in Greece, the Aegean, and Asia Minor.

The ovolo of 4, 1 is of special interest, since there can be no doubt of its date in the last quarter of the 6th century, so similar is the profile to ovolos of that period from Paros, Delphi, Delos, and other sites (*PGM*, pls. VI, VII). Its provenance is unfortunately unknown, but it evidently was found on the island of Kos and therefore holds out a tantalizing promise of the archaic Ionic architecture which may still be revealed on the island.

For the geison crown, both Doric and Ionic, of the 3rd and 2nd centuries (2, 3), the ovolo is always uncarved and either only slightly oval or actually straight-sided in one of the Pergamene types, II, III, or IV (*PGM*, p. 22). There is no Type I with a curve at the point of projection above a straight side. The curved section of an oval, without any top depth (2, 7-10, 12; 3, 2), and the Pergamene Type III (2, 11; 3, 3, 4, 6-8, 10, 11), without top depth but with a vertical above the point of projection, are the most common forms.

The 2nd century epistyle crowns are both carved (4, 4) and uncarved (4, 3), the carved form deeper and more rounded than the uncarved, as usual for the period. The frieze crown (4, 5) which accompanies the carved epistyle crown on the Altar of Dionysos at Kos is also carved and has a well rounded deep profile. The forms of the ovolo and the use of the ovolo for both these members suggest the parallel with the 4th century Mausoleion at Halikarnassos and the 2nd century temples of Magnesia and Teos and emphasize the close relation between Kos and Asia Minor which is to be noticed in the case of several moulding usages.

Another link is the use of the characteristic Asiatic Ionic anta capital with its triple-ovolo form. The ovolos of 4, 2 are fine deep rounded forms carved with egg and dart typical of 4th century Asiatic ovolos. The central ovolo in 5, 9 is flattened as usual for the middle one which carries a lotus and palmette (*PGM*, pls. X, XI). The combination with a cyma reversa substituted for the lowest ovolo is known from the late 4th century and later, but here the cyma reversa has both the profile and the ornament characteristic of the late 6th century and the portion of the ovolo preserved is paralleled in 6th century triple-ovolos.

Deep well-rounded carved ovolos are used for a 3rd century Ionic echinus (4, 10) and for several unidentified crowning mouldings probably from altars or bases (4, 6-9, 11). For 2nd century bases the plain uncarved barely oval form of ovolo, common for most architectural members in the 2nd century, is used (4, 12-14).

An uncarved but well curved ovolo without top depth serves as a Doric epistyle back (5, 2). It is more rounded than the usual more straight-sided Doric ovolos. The plain barely curved coffer profiles (5, 1) are comparable to other 2nd century coffer ovolos.

The unusual frequency of an ovolo crowning a Doric frieze is to be noted (see below, p. 346). The forms are well suited to the Doric order: either definitely Doric (5, 3, 4) in their straight-sidedness or of the still straighter Pergamene fascia-splay type (5, 5-7).

#### CYMA REVERSA

Except for the geison soffit for which the cyma reversa became canonical for both orders in the last years of the 5th century, there are fewer uses of this second Ionic moulding than of the ovolo.

The geison soffit profiles include the variety of forms and proportions regularly found among cyma reversa profiles in this position, and the same general conclusions drawn in *PGM*, p. 68, hold here. The favorite 4th century proportions are used on the 4th century Rhodian geisa (6, 3-8), and one of the preferred 3rd century types occurs in 3rd century Rhodes (6, 9, 10). The 2nd century offers the greater variety of proportion it does everywhere else in the Greek world, and the general tendency toward more tight or angular curves is observable here also. Two particular versions of this tendency, not common elsewhere, are noticeable, namely, (1) the very round projecting curve carrying up into an undercut curve between the cyma and the mutule and with a long open curve below (6, 20, 21), and (2) the inner curve cut back beyond the bottom depth (6, 22, 23).

The substitution of a cyma reversa for the lowest of the three ovolo profiles of the Asiatic Ionic anta capital was made in the latter half of the 4th century in Priene (*PGM*, pp. 63-64, 174-175) and in the Charmyleion on Kos.<sup>7</sup> The profile 5, 9 from Kos, however, has both the shallow profile and the form of Lesbian leaf which are characteristic of the late 6th century. It is of particular interest to find this variation on the triple-ovolo much earlier than previously known, even in Asia Minor, the home of this type of capital. In the completely Ionic Charmyleion this combination of two ovolos (the lower ornamented with lotus and palmette) and a cyma reversa is used not only for the anta capitals but also for the lintels of doors in the lower part of the monument.<sup>8</sup>

Few uses of the cyma reversa for other members of the Ionic order have been identified. One abacus from Kos (5, 14) in the 3rd century parallels the use of a cyma reversa for abacus at Halikarnassos and Priene in the 4th and Magnesia in the 2nd century and draws Kos close to Asia Minor once more.

<sup>7</sup> Schazmann, *Jahrb.* XLIX, 1934, pp. 122-123, and pp. 118-119, figs. 6(18), 7(2).

<sup>8</sup> *Ibid.*, p. 118, and pp. 117, 119, figs. 5, 7(6, 7, 9, 11).

The cyma reversa appears as the crowning moulding of a base, parapet, altar, or podium, usually uncarved. The crown of the Parapet of the Water Basin in the Fountain House at Ialysos (5, 12) has a regular 4th century form, while the crown of the base of Helios at Kameiros (5, 13) is more shallow and with less full swing of the curves, later in its form, as also 5, 15. The two huge podium crowns (6, 1, 2) with their fascia-crowned cyma reversa profiles transport one's thought immediately to Italy rather than to anywhere in Hellenistic Greece. There are comparable base cyma reversa profiles (7, 2, 3) at the base of these podia on which a 2nd century temple and the stoa of a sanctuary are set in the Agora of Kos. It had been customary from archaic times to set an Ionic temple on a krepidoma higher than the canonical three-steps for a Doric building, but it was usually a stepped krepidoma. The substitution of a definite podium with vertical sides and crowning and base mouldings is of considerable interest in relation to the tradition for this kind of platform in the Italian peninsula from the earliest Etruscan temples. The cyma reversa was the favored profile for the crowning and base mouldings of Republican Roman podia from the 3rd to the early 1st centuries.

Other uses of the cyma reversa for base mouldings find parallels in Greek lands. Threshold blocks are not regularly furnished with a moulding, but when one is added, it is a cyma reversa (*PGM*, p. 87), as in a building in the sanctuary of Apollo Erethimios on Rhodes (5, 18). The combination of a base cyma reversa with a cavetto below is a common one for altar, statue, and similar bases (*PGM*, p. 89) and is found in several variations in Kos and Rhodes (7, 1, 4, 5), both with and without an additional torus below the cavetto and an astragal crowning the cyma reversa. The cyma is either of equal height and depth or of greater depth than height with the two curves about equal, the proportions most satisfactory for a base moulding (*PGM*, p. 89). Noteworthy is the projecting sloping fillet at the top of the cyma in a base from Kos (7, 4) which seems reminiscent of the Periklean projecting fillet and is probably to be considered archaistic in its use here. All these base mouldings are uncarved, except 7, 5 which carries the usual Lesbian leaf (Pl. 108, 6).

Considering the comparatively few examples of a cyma reversa profile cut in a step rebate (*PGM*, p. 86, pl. XXXIV, 26-30), it is interesting to find two more examples, one at Lindos (5, 16) and one at Kos (5, 17). The latter has a typical 2nd century profile, the former looks more like a 4th century profile.

#### CAVETTO

"After the 6th century the cavetto is essentially an Ionic moulding and a secondary moulding used to crown or to supplement the base of the main type of profile in a given position. It continues to be used occasionally in the Doric order, either alone (rarely) or as a secondary moulding." (*PGM*, p. 131). The cavettos



of Kos and Rhodes support this statement. They add to the rare examples of an independent cavetto. These (2, 1, 2) are of a cavetto used in its original position, the *sima*, as late as the 4th century, when the cavetto as *sima* had gone out of use in the 6th century elsewhere. The relation of these pure cavetto profiles to the *cyma recta* has been discussed above (p. 340).

As a crowning finish to late 5th and 4th century hawksbeaks, especially on anta and pier capitals, the cavetto was common in Doric and appears in 1, 6, 7 from Ialysos and Kos.

But the chief use of the cavetto in the 4th to 2nd centuries was as a secondary Ionic moulding, both in crowning mouldings over ovolo (4, 4, 6, 11-14) and *cyma reversa* (5, 13) from members of the order, especially the epistyle, and from separate bases, and in base mouldings with a *cyma reversa* (7, 1, 4, 5).

The 4th century forms are comparatively shallow with the fascia a small proportion of the whole height. The later forms tend to project much more till depth equals height of the curve and the fascia becomes much heavier, sometimes as high as the curve beneath. The depth of the base cavetto forms depends on the position and the amount of projection desired.

#### HALF ROUND

The two general uses of the half round profile in Greek architecture (*PGM*, p. 145), (1) small, as base or crown finish of a crowning or base major Ionic moulding, and (2) large, either alone or in combination, for a base moulding, appear in Kos and Rhodes.

Most of the round and Ionic ovolos, both carved and uncarved, carry a base astragal (except geison crown ovolos). A carved *cyma reversa* profile, either crown or base, usually has a base or crowning astragal; the one base *cyma recta* (7, 10) has a finishing astragal as do the top torus profiles of some Ionic bases. Double astragals are used to finish and to separate the scotiae of an Ionic base (7, 6). All these are familiar uses. Unusual is the addition of a base astragal to a hawksbeak pier capital (1, 7) and must represent distinct Asia Minor influence in neighboring Kos. Also unique is the use of an astragal at the top of the crowning fascia of a *cyma recta sima* from Rhodes (2, 4). In a few cases these astragals are complete half circles, but usually they meet the main moulding at a point short of the full half of the circle. They are carved when the main moulding is, but uncarved when the main moulding is plain.

The large half round, the torus, occurs in most of the usual combinations for various base mouldings: two tori with a scotia in an Attic Ionic base (7, 7), a torus with a scotia below (7, 8, 9), with a *cyma reversa* and cavetto above (7, 5), and with a *cyma recta* above (7, 10). The profiles are usually not quite full half circles. They

are unfluted in general, as usual after the 5th century (*PGM*, p. 145). The exception is the base of what may have been an altar or monumental base (7, 5), on which the cyma reversa also is carved: the torus carries a guilloche, the usual ornament for this use of a torus, if any occurs.

### *Doric*

#### GEISON DRIP

The 4th century drips are typical 4th century forms (*PGM*, p. 158) with a deep curved undercut still broad, with a fine tip on line with or lower than the bottom of the inner fascia (8, 1, 2). The undercut becomes narrower and less curved and the tip broader (8, 3, 4) in the later 4th and 3rd centuries. Most of the 2nd century drips are the usual contracted forms with very broad tip, the undercut reduced to a small narrow curve (8, 7, 8, 11), triangle (8, 9, 10), or rectangle (8, 12). The fine broad and curved drip from Temple A of the Asklepieion at Kos (8, 6) must be considered archaistic although the sloping fascia does not fit the other 4th century characteristics.

### *Ionic*

The general trend from fine to broad tip and from sweeping to somewhat more tight (at its start) soffit curve observable in the Ionic geison elsewhere (*PGM*, p. 160) is to be seen here (8, 13-19).

## III. ARCHITECTURAL MEMBERS

The bulk of the mouldings are from geison or sima-geison blocks, Doric in the 4th century, both Doric and Ionic in the 3rd and 2nd centuries.

### *Sima*

The sima profile is always some form of the cyma recta. This is to be expected for the 3rd and 2nd centuries, by which time the cyma recta had become canonical for the sima in both Doric and Ionic orders in all parts of Greece and had superseded all other profiles for the sima when made of stone. All three types, vertical (A), diagonal without large reverse curve (B), and with strong reverse curve at the bottom (C) (*PGM*, p. 92) occur. It is unusual, however, to find a cyma recta used for the Doric order in the 4th century, when all Doric buildings elsewhere use the vertical sima elaborated by carved ornament rather than by curved profile (*PGM*, pp. 163-164). It will be noted that the sima profiles of two of the Rhodian 4th century buildings (2, 1, 2) are the simplest and in a sense earliest type of cyma recta, in that they are actually hardly more than the cavetto from which the cyma recta developed. There is no reverse curve at the base which is necessary to make a real cyma recta. On the other hand, the proportion of projection to height is that of contemporary cyma recta profiles rather than of the old shallow cavetto used as a sima in the 7th and early 6th centuries. They must be considered then as essentially cyma recta forms, as another

contemporary sima from Lindos (2, 6) clearly is. Rhodian architects evidently preferred the possibilities of the uncarved cyma recta form of sima, first used in a Doric order by Mnesikles in the southwest wing of the Propylaia at Athens, to the contemporary carved vertical form in use elsewhere. By so doing they may well have helped show Doric architects in other centers the advantages of the Ionic form. This use of the originally Ionic sima for the Doric order earlier than in general throughout Greece appears to be one striking instance of the kind of influence one might have expected the cities of Ionia to exercise on their close neighbor.

### *Geison*

The hawkbeak geison crowns (1, 1-5) are all of the ovolo rather than cyma reversa type, and all but one (1, 1) with a receding corona. It is perhaps noteworthy that the later, cyma reversa type, hawkbeak did not come into use on Rhodes in the 4th century. That being the case, it is no surprise not to find any hawkbeak from the 3rd and 2nd centuries, when they still do occur occasionally elsewhere. The more common 3rd and 2nd century geison crown, the ovolo, is used here entirely, both for Doric and for Ionic (2, 3). There is no example of the more rare Ionic geison crown, the cyma reversa. Both curved and straight (Pergamene) ovolos are used, but always with a fascia between the ovolo and the cyma recta sima above and only once (3, 13) without the crowning fascia on a geison only.

All geison soffits (6, 3-23) are the cyma reversa canonical for both Doric and Ionic from the last 3rd of the 5th century on (*PGM*, p. 168).

### *Doric Frieze*

Although normally no moulding is added at the top of the fascia which crowns the triglyphs and metopes of the Doric order, the practice of adding an astragal or tiny plain ovolo in Periklean buildings was followed in a few 2nd century buildings of Priene and Pergamon (*PGM*, pp. 50-51, 169). It is noteworthy then that most of the 2nd century buildings in Kos use an ovolo crown for the Doric frieze (5, 3-7). Rhodes, however, does not seem to have taken up the idea any more than most of the Greek world who leave the fascia unelaborated to the end of Greek architecture.

### *Ionic Epistyle and Frieze*

A fragment of an ovolo from Kos (4, 1) is probably to be identified as the epistyle crown of an Ionic building of the late 6th century, to judge from the similarity to Ionic epistyle crowns of the latter part of the 6th century at Delphi and in the Aegean islands. Fragmentary though the evidence is,<sup>9</sup> it is of extreme interest to find the pure Ionic order in use on Kos in at least one example in the 6th century.

<sup>9</sup> Anta Capital 5, 9 of similar date might well belong to the same building.



Ionic buildings seem to have been fewer than Doric even in the 2nd century in Kos and Rhodes. Of these only the crowning mouldings of two epistyles and one frieze were identified. All are ovolo. The Altar of Dionysos at Kos follows the Asia Minor custom of using an ovolo for both epistyle and frieze (instead of ovolo for one and cyma reversa for the other, as more commonly in Ionic orders elsewhere), as at Halikarnassos in the 4th century, Magnesia, Miletos, and Ephesos in the 2nd century. The epistyle ovolo is finished with a cavetto (4, 4) or fascia (4, 3), as is regular for epistyle crowns. The ovolo crowning the sculptured frieze (4, 5) is, as usual in such cases, without further crown.

### *Anta Capital*

For Doric anta and pier capitals, the regular Doric hawkbeak occurs. As for the geison crowns (above p. 346), the ovolo type hawkbeak is retained even in the early 3rd century at Kos (1, 7) instead of the cyma reversa type hawkbeak universally adopted by that time elsewhere. The characteristic cavetto crown of the 4th and later centuries is used on both the 4th and 3rd century examples (1, 6, 7). The addition of a base astragal at Kos (1, 7) appears to represent the influence of close contact with Asiatic Ionic.

Three examples, two fragmentary, of the typical Asiatic Ionic anta capital (*PGM*, pp. 19-21, 174-176, pls. X, XI), all from Kos (*Jahrb.* XLIX, 1934, p. 122 and p. 119, fig. 7(2); and 4, 2, 5, 9), are a further indication of close artistic contact between Kos and Asiatic Ionian centers. In one case (4, 2) the original form of three ovolos, each projecting beyond the other, occurs; in the other two cases the bottom ovolo has become a cyma reversa, as in 4th to 2nd century Ionia. In 5, 9, however, the cyma reversa is late 6th century in both profile and ornament, and the part preserved of the ovolo above confirms that date. This is then the earliest example of this variant of the Asiatic capital yet known. The capitals from the Charmyleion, on the other hand, are paralleled by late 4th century Asiatic examples. Since the profiles of the triple-ovolo capital are 4th century in character, it becomes clear that both the triple-ovolo type and the type with a cyma reversa replacing the bottom ovolo were contemporary from the late 6th century on, not the latter replacing the former in the 4th century as evidence previously available had appeared to indicate (*PGM*, p. 20).

### *Varia*

Single examples of ovolos appear as 2nd century Doric epistyle back (5, 2), as coffer (5, 1), and as Ionic column necking (4, 10), all regular forms and uses.

The abacus (5, 14) of the Ionic 3rd century temple of the Asklepieion at Kos is a cyma reversa, following the practice at Halikarnassos and Priene (*PGM*, p. 172). The base of the Ionic columns (7, 6) is the Ephesian (*PGM*, pp. 179-180) rather than Samian type of the Asiatic base and so draws the architecture of Kos still closer

to the style of Asia Minor itself rather than of the islands or other Ionic centers. The torus is lacking but the double scotia is characteristic of the type developed at Ephesos, used at Delphi and Athens in the 6th century and regularly in Asia Minor from the 6th through the 2nd century.

The regular Attic Ionic base is used for an anta base at Lindos (7, 7) and the rarer combination of torus and cavetto for a base in the city of Rhodes (7, 9).

A cyma reversa is used twice in a step rebate (5, 16, 17) as occasionally elsewhere (*PGM*, p. 86, pl. XXXIV, 26-30). A single threshold moulding (5, 18) is the usual cyma reversa (*PGM*, pp. 87-88, 181-182, pl. XXXVII, 12, 15, 16).

For bases, serving various purposes, there are a number of ovolo or cyma reversa combinations for the crown and cyma reversa, torus, scotia, and cavetto combinations for the base. The temple podium of the 2nd century has the single large cyma reversa for both crown and base (6, 1, 2; 7, 2, 3), as in contemporary Italic podia. The small statue base of the 2nd century usually has a plain typical 2nd century ovolo with a cavetto crown (4, 12, 13, 14) and no base moulding. To other bases or altars probably belong such combinations of carved round ovolo and cavetto or cyma recta crown as 4, 6, 7, 8. Such bases as 7, 4, 5 combining cyma reversa with torus and/or cavetto probably belong with those crowns and both are paralleled elsewhere in Greece. The use of the cyma recta for a base (7, 10) is rare in Greek times and was probably as unusual in Kos at the time as generally in Greece.

#### IV. CONCLUSION

The evidence of architectural mouldings found on Kos and Rhodes seems to confirm both the traditional Dorian origin of the peoples and the later historical connections of the islands. The close cultural affinity of Kos to the cities of Asia Minor reflects the close geographical proximity which determined the political and social relations between them. Kos used her traditional Doric order widely; in addition, both pure Asia Minor Ionic orders and forms<sup>10</sup> and Ionicisms in the mouldings of the Doric order<sup>11</sup> emphasize the powerful effect of Ionia on the original Doric tradition of Kos. In marked contrast, however, to the strong Ionic influence on the architecture of Kos is the greater independence maintained by the architecture of Rhodes which was never drawn as closely into the Ionian orbit and remained throughout its history in Greek times a powerful independent center. On Rhodes the tradi-

<sup>10</sup> Charmyleion, pp. 342, 347; ovolo epistyle crown, pp. 341, 346; ovolo for both epistyle and frieze crowns, pp. 341, 347; triple-ovolo anta capital, pp. 341, 347; triple-ovolo anta capital with cyma reversa substituted for bottom ovolo, pp. 341, 342, 347; two ovolos and cyma reversa for lintel, p. 342; cyma reversa abacus, pp. 342, 346; Ephesos type base, p. 347.

<sup>11</sup> Base astragal added to the hawkbeak of Doric anta capital, pp. 340, 344, 347; ovolo crown of Doric frieze, pp. 342, 346.

tional Doric order is regular; the mouldings are usually of the contemporary form elsewhere in the Dorian world, but the vigorous independence and leadership of Rhodes is reflected in occasional individual treatment, at times original, at times with some Ionic inspiration.<sup>12</sup>

V. CATALOGUE<sup>13</sup>

## HAWKSBEAK

1. 1. Mid 4th c. *Ialysos*, Fountain House, Geison Crown. Limestone.

Sima 2, 1; Geison Soffit 6, 5; Drip 8, 13; Pier Capital 1, 6; Anta Capital 5, 8.

*Clara Rhodos*, I, pp. 79-82, figs. 63, 64.

The shallow upper curve, just beginning to show a reverse at the bottom, and the small undercut link this with profiles of the mid and latter part of the 4th c. Cf. *PGM*, pls. LIV, 28, 32-36; LV, 34.

2. 2nd h. 4th c. *Lindos*, Stoa, Raking Geison Crown. Conglomerate.

Sima 2, 2; Geison Soffit 6, 6.

The receding corona combined with the single oval upper curve is characteristic of a group of hawksbeaks from about the middle of the 4th c. or a bit earlier. Cf. *PGM*, pl. LV, 1-7, including the Tholos at Epidauros, Leoni-daion at Olympia, and Stoa at Oropos.

3. 2nd h. 4th c. *Lindos*, Stoa, Horizontal Geison Crown. Conglomerate.

Sima 2, 2; Geison Soffit 6, 7; Drip 8, 1.

Mutule  $0.28 \times 0.185 \times 0.03$ . Via 0.065

See note for 1, 2.

4. 2nd h. 4th c. *Lindos*, Stoa, Geison Crown. Conglomerate.

Sima 2, 6; Geison Soffit 6, 8; Drip 8, 2.

*Mem. Istit. Storia-Arch. Rodi*, II, pp. 18-20, pls. X, XI.

Mutule  $0.35 \times 0.195 \times 0.03$ . Via 0.093. Cf. *PGM*, pl. LV, 7 from Eretria.

The forms of all the profiles find parallels in the 4th century but not in the 2nd century, so are difficult to reconcile with the 2nd century date suggested by Laurenzi (*Mem. Istit. Storia-Arch. Rodi*, II, p. 20).

5. 2nd h. 4th c. *Ialysos*, Temple of Athena, Geison Crown. Limestone.

Geison Soffit 6, 13; Drip 8, 4.

*Clara Rhodos*, I, p. 74.

Cf. *PGM*, pl. LV, 1, Tholos at Epidauros. The upper curve here is deeper and may therefore point to a slightly later date. The 3rd-2nd c. date suggested in *Clara Rhodos* seems much too late, however.

6. Mid 4th c. *Ialysos*, Fountain House, Pier Capital. Limestone.

See above, 1, 1.

*Clara Rhodos*, I, pp. 79-82, fig. 64.

The cavetto crown, the deep upper curve, small undercut, and receding fascia below are all typical of the 1st half of the 4th c. Cf. *PGM*, pl. LVIII, 13, Olympia, Pelopion, in which the larger undercut and projecting fascia are somewhat earlier.

7. 1st h. 3rd c. *Kos*, Asklepieion, Lower Terrace, Stoa, Pier Capital. Limestone.

*Kos*, I, p. 67, pl. 22, 1.

The well-rounded upper curve is unusual for the 3rd c. date of the official publication; it is

<sup>12</sup> Absence of cyma reversa type hawksbeaks, pp. 340, 346; lack of hawksbeaks from the 3rd and 2nd centuries, p. 346; cavetto type cyma recta sima in the Doric order of the 4th century, pp. 340, 344, 345; astragal crown on cyma recta sima, pp. 340, 344; set-back fascia of type A cyma recta sima, p. 340.

<sup>13</sup> It is a pleasure to acknowledge my indebtedness to the particular kindness of Dr. Luigi Morricone, Director of Excavations in Kos, for much assistance in the identification of unpublished pieces and permission to include them.



typical rather of the early 4th c. in Greece, *PGM*, pp. 116-117. The base astragal is an unusual finish in old Greece, paralleled only in a similar treatment in Upper Peirene on Akrokorinth, *PGM*, pl. LIX, 9, and on the anta capital recently discovered in the Agora Excavations in Athens, probably belonging to the Stoa Poikile.<sup>14</sup>

The addition of the Ionic astragal to the Doric hawksbeak was common in 6th century Selinos, typical of the Sicilian fusion of Doric and Ionic elements. The Ionian associations of Kos are sufficient explanation for the combination here, but the interesting point is that the, perhaps obvious, combination does not occur in other East Greek sites.

#### CYMA RECTA SIMA

##### Type A

2, 1. Mid 4th c. *Ialysos*, Fountain House. Limestone.

Geison 1, 1; 6, 5; Pier Cap 1, 6; Anta Capital 5, 8.

*Clara Rhodos*, I, pp. 79-82, figs. 63-64.

A pure cavetto without the reverse curve at the base which creates the real cyma recta. Cf. *PGM*, pl. XLII, 1 and 2, Didyma, Temple of Apollo, Naiskos, of same period, more projecting than here. The set-back base fascia is unusual.

2. 2nd h. 4th c. *Lindos*, Stoa. Conglomerate. Geison 1, 2, 3; 6, 6, 7; 8, 1.

Cavetto, more projecting than 2, 1, same set-back base fascia.

3. Mid 4th c. *Rhodes*, Sanctuary of Apollo Erethimios, Temple. Marble.

*Clara Rhodos*, II, p. 94, figs. 9, 21, 22, 23, pl. II.

Lotus and palmette spacing 0.275. Closer to Didyma Naiskos than two preceding in both profile and ornament. Base fascia projects. The profile is clearly more akin to mid 4th c.

than late 5th or early 4th forms. Although Jacopi uses the ornament as evidence for his date *ca.* 400 it is to be noted that the only close 5th c. parallel to the ornament is that of the Delian Temple of the Athenians, the profile of which is also unusual for the date of the temple 426-417. Is it possible that the Delian sima and sculptured akroteria were added later, in the 4th c.? Further strong support for a date at least as late as the mid 4th c. for the Apollo Erethimios temple lies in the geison crown as drawn by Balducci in *C.R.*, II, p. 87, fig. 9 (no unbroken piece could be found in 1937 so no profile is given here). An ovolo is never used to crown a Doric geison before the mid 4th c. (*PGM*, pp. 165-166).

4. 3rd-2nd c. *Rhodes*, Rhodes Museum 314. Marble.

The crowning astragal is an unusual addition. L. 0.385 from joint to center of lion head. A vertical form such as appears in both 3rd and 2nd centuries.

5. 2nd c. *Rhodes*, Sanctuary of Apollo Erethimios. Stuccoed Poros.

Slight curve at base of almost vertical cyma recta (almost Type B) could be either 3rd or 2nd c., but Pergamene ovolo geison crown makes it 2nd c.

##### Type B

6. 2nd h. 4th c. *Lindos*, Stoa. Conglomerate.

Geison 1, 4; 6, 8; 8, 2.

Cyma inclines out in a Type B form. Cf. *PGM*, pl. XLII, 4, Priene, Temple of Athena. The hawksbeak geison crown dates *ca.* mid to 2nd h. 4th c. See note on 1, 4.

7. *Rhodes*, Sanctuary of Apollo Erethimios. Stuccoed Poros.

Geison Soffit 6, 11; Drip 8, 14.

Hardly any reverse curve but strong outward inclination. Fascia crown of ovolo geison

<sup>14</sup> See above p. 327 and Pl. 103a and b.

crown projects more than in comparable *PGM*, pls. XLIII, 9; XLIV, 8, 12.

8. *Kameiros*, Lower area. Lying E of temple. Stuccoed Poros.

Geison Soffit 6, 12; Drip 8, 15.

L. 0.455; H. 0.16; bottom D. 0.335. Very similar to 2, 7. Cf. *PGM*, pl. XLIII, 9, Thera, Ptolemaic Gymnasium, 246-221 B.C.

9 and 10. 3rd c. *Kameiros*, Stoa. Stuccoed Poros.

Geison Soffit 6, 9; 6, 10. Drip 8, 3.

*Clara Rhodos*, VI-VII, p. 248, figs. 32-34.

Geison crown projects as in 2, 7 and 8. Type B cyma recta paralleled in both 3rd and 2nd c. Cf. especially 3rd c. Delian examples, *PGM*, pl. XLIII, 1-3, 7, 10, of which 7, Portico of Antigonos (246-239), is closest.

### *Type C*

11. 2nd c. *Kos*, Sima Geison. Museum in Castello. Marble.

Geison Soffit 6, 17; Drip 8, 18.

L. 1.31, H. 0.395, bottom D. 0.53. Dentils W. 0.065, H. 0.091, D. 0.073, spacing 0.04. Lion heads on sima. More emphatic reverse curve with fascia set back.

12. 2nd c. *Kos*, Agora, Sima Geison. Lying in area of Stoa, SW corner. Marble.

Geison Soffit 6, 14; Drip 8, 17.

*Boll. d'Arte*, XXXV, 1950, pp. 54-74.

H. 0.40, bottom D. 0.65. Dentils H. 0.097, W. 0.07, D. 0.08-0.105. Similar to 2, 11 with larger base fascia.

13. *Rhodes*, Sima Geison. Rhodes Museum 171. Marble.

L. 0.495. Lion heads on sima. The undercut of the cyma curve is more likely 2nd c. than 3rd c.

3, 1. 170-150 B.C. *Kos*, Asklepieion, Temple A. Marble.

Geison 3, 12; 8, 6; Epistyle Back 5, 2; Step Rebate 5, 17.

*Kos*, I, pp. 11, 12, pls. 4, 5; 5, 4, 7.

Decided reverse curve and diagonal axis. Cf. Pergamon, Sanctuary of Athena, Temple of Hera, etc., *PGM*, pls. XLVI, 8-13; XLVII, 1.

2 and 3. 170-150 B.C. *Kos*, Asklepieion, Upper Terrace, Stoa. Marble.

Geison Soffit 6, 20; Frieze Crown 5, 6.

*Kos*, I, p. 20, fig. 17, pls. 8, 9, 43 unten.

This vertical type with decided reverse curve at bottom is not common elsewhere in 2nd c. Greece, where the diagonal axis with a strong lower curve is more favored. Cf. *PGM*, pl. XLIV, 2, 5 with less prominent lower curve.

4. 2nd c. *Kos*. Temple near Altar of Dionysos. Museum in Castello. Marble.

Geison Soffit 6, 16.

H. 0.39. Mutule  $0.39 \times 0.23 \times 0.003$ . Via 0.048. For vertical lower curve and strongly projecting upper curve cf. *PGM*, pl. XLIV, 7, Pergamon, Middle Gymnasium Terrace Temple, 197-159 B.C.

5. 2nd c. *Kos*. Temple near Altar of Dionysos. Marble.

Mutule  $0.39-0.45 \times 0.225-0.237 \times 0.005$ . See note on 3, 4. Note, however, the very much heavier fascia here than in any other examples.

6. 160-100 B.C. *Kos*, Asklepieion, Altar. Marble.

Geison Soffit 6, 15; Coffers 5, 1; Podium Base 7, 1.

*Kos*, I, p. 30, fig. 23, pl. 13.

Cf. *PGM*, pl. XLVII, 5, Delos Kabeirion, ca. 100 B.C., but this *Kos* sima projects far more strongly.

### CYMA RECTA

#### *Crowning Mouldings*

4, 6. *Kameiros*, Fragment of frieze. Marble depot. Marble.

Pl. 108, 5.

See under "Ovolo."

Lotus and palmette spacing 0.19. Above and set back of a cavetto crowned ovolo, is a cyma recta in the relation of a frieze to an epistyle

crown. Probably the whole served as crown of a base or altar, or as entablature of a small building. The shallow form of the cyma recta and its position are somewhat reminiscent of the cyma recta friezes that occur occasionally from the mid 4th through the 2nd c. (*PGM*, pp. 96-98, pls. XIV, XXVI).

7. *Rhodes*, Fragment. *Rhodes Museum*. Marble.

See under "Ovolo."

Lotus and palmette spacing 0.051. The cyma recta, slender, sloping out directly from the bottom but not strongly projecting is used in place of the usual cavetto to crown the main moulding, an ovolo. The presence of the base astragal between the two, however, gives the cyma recta an emphasis and an individual existence. The resultant effect, then, is of a compound moulding of two equal elements rather than of a cavetto crowned single moulding.

8. *Kos*, Fragment. *Museum in Castello*. Marble.  
Pl. 108, 4.

Lotus and palmette spacing 0.09. The tall shallow cavetto has a nick near the bottom which creates a cyma recta with its base fascia. See note under "Ovolo."

#### CAVETTO

##### *Crowning Mouldings*

2, 1. Mid 4th c. *Ialysos*, Fountain House, *Sima*. Limestone.

See under "Cyma Recta—Sima."

2. 2nd h. 4th c. *Lindos*, Stoa, *Sima*. Conglomerate.

See under "Cyma Recta—Sima."

4, 4. Last 3rd 2nd c. *Kos*, Altar of Dionysos, Epistyle Crown. Marble.

Frieze 4, 5.

*Boll. d'Arte*, XXX, 1936, p. 138, fig. 15.

Shallow vertical form of cavetto, with the large fascia which is characteristic of 2nd c. The shallow form is appropriate to an epistyle

crown where the projection should not be strong.

1, 6. Mid 4th c. *Ialysos*, Fountain House, Pier Capital. Limestone.

*Sima* 2, 1; *Geison* 1, 1, 6, 5, 8, 13; *Anta Capital* 5, 8.

*Clara Rhodos*, I, fig. 64.

Cavetto still tall and shallow with small fascia, but slopes out from very bottom to give desired projection for capital.

7. 1st h. 3rd c. *Kos*, Asklepieion, Lower Terrace Stoa, Pier Capital. Limestone.

*Kos*, I, p. 67, pl. 22, 1.

Tall slender cavetto with small fascia and with lower part still vertical. Such a form is usual in the 5th century; is it archaistic here? See note under "Hawksbeak."

4, 11. Mid 4th c. *Kos*, Delphis Base. *Museum in Castello*. Marble.  
Pl. 108, 2.

Base 7, 4.

A pair of cavettos, one above and projecting in front of the other, crown the ovolo. Both have the tall very shallow vertical form with tiny crowning fascia that is characteristic of 5th and 1st half 4th c., but the ovolo form brings the date well down in the second quarter of the 4th century. The duplication of cavettos is unusual.

5, 13. 3rd-2nd c. *Kameiros*, Altar of Helios. *Poros*.

*Clara Rhodos*, VI-VII, pp. 256, 387, figs. 43, 43 bis.

The tall thin cavetto is unusual after the 5th and 4th centuries, but does occur rarely in Pergamon in the 2nd c. (*PGM*, pls. XXXVI, 14, LIX, 13). The shallowness of the cyma reversa it crowns here indicates a desire for a less projecting crown than common at the period suggested by the letter forms of the inscription.

4, 12. 2nd c. *Rhodes*, Base. *Rhodes Museum*.

See under "Ovolo." The strongly projecting



cavetto with fascia almost as high as curve below is characteristic of 2nd c.

13. 2nd c. *Kameiros*, Base. Marble.

See under "Ovolo." Fascia of cavetto higher than curve.

14. 2nd c. *Kameiros*, Base. Marble.

See under "Ovolo." Strongly projecting cavetto of which fascia must be restored as about equal in height to curve below.

#### OVOLO

##### *Geison Crown*

2, 7. *Rhodes*, Apollo Erethimios. Stuccoed Poros.

Geison Soffit 6, 11; Drip 8, 14.

Cf. *PGM*, pl. XLIII, 9, Thera, Ptolemaic Gymnasium; pl. XLVI, 2, Pergamon, Palace; pl. XLIV, 8, and pl. XX, 28, Delos, Portico of Philip, Naikos; pl. XX, 18, Oropos, Theatre; pl. XLIV, 1, Pagasai.

8. *Kameiros*, Lower Sanctuary, Lying E of Temple. Stuccoed Poros.

Geison Soffit 6, 12; Drip 8, 15.

3, 2. 170-150 B.C. *Kos*, Asklepieion, Upper Terrace, Stoa. Marble.

Geison Soffit 6, 20; Drip 8, 10; Frieze Crown 5, 6.

*Kos*, I, p. 20, fig. 17, pls. 8, 9, 43 unten.

Cf. *PGM*, pl. XX, 23, 24, Delos, Serapeion, late 2nd c.

12. 170-150 B.C. *Kos*, Asklepieion, Temple A. Marble.

Sima 3, 1; Geison Drip 8, 6.

*Kos*, I, pp. 11, 12, pls. 4, 5; 5, 4, 7.

13. *Kos*, Sima Geison. Museum in Castello. Marble.

Geison Soffit 6, 19; Drip 8, 5.

L. 0.34; D. 0.42. Mutules  $0.36 \times 0.21 \times 0.024$ . Via 0.08. Deep horizontal at bottom of shallow oval with slight top depth.

2, 12. *Kos*, Agora, Ionic Geison. Lying in area of Stoa, SW corner. Marble.

Geison Soffit 6, 14; Drip 8, 17.

Painted egg and dart 0.05. Horizontal at bottom of oval curve with no top depth.

9 and 10. 3rd c. *Kameiros*, Stoa. Stuccoed Poros.

Geison Soffit 6, 9; Geison Soffit 6, 10; Drip 8, 3.

*Clara Rhodos*, VI-VII, p. 248, figs. 32-34.

Flatter oval, no top depth, horizontal at bottom.

13. *Rhodes*, Sima Geison. Rhodes Museum 171. Marble.

Cf. *PGM*, pl. XLVI, 4. Short vertical above deep almost straight curve.

5. 2nd c. *Rhodes*, Apollo Erethimios. Stuccoed Poros.

Pergamene ovolo Type II.

3, 9. *Kos*, Sima Geison. Museum in Castello. Marble.

Geison Soffit 6, 23; Drip 8, 8.

H. 0.36, bottom D. 0.53. Mutules  $0.30 \times 0.155 \times 0.004$ . Via 0.055. Pergamene Type II.

2, 11. *Kos*, Sima Geison. Museum in Castello. Marble.

Geison Soffit 6, 17; Drip 8, 18.

Pergamene Type III with slight curve.

3, 8. *Kos*, Temple near Altar of Dionysos. Marble.

Geison Soffit 6, 21; Drip 8, 7.

Pergamene Type III. Cf. *PGM*, pl. XLV, 7.

10. *Kos*, Agora Area, SW corner. Marble. Pl. 109, 6.

Drip 8, 11; Triglyph Crown 5, 4.

*Boll. d'Arte*, XXXV, 1950, pp. 71-72, fig. 27.

Mutule W. 0.41. Via 0.027. Pergamene Type III with curve.

4. *Kos*, Temple near Altar of Dionysos. Marble.

Geison Soffit 6, 16; Drip 8, 12.

Type III. Cf. *PGM*, pl. XX, 25, 26; pl. XLIV, 14; pl. XLVII, 3, with angle.

6. 160-100 B.C. *Kos*, Asklepieion, Altar. Marble.

Geison Soffit 6, 15; Drip 8, 19; Coffers 5, 1; Podium Base 7, 1.

*Kos*, I, p. 30, fig. 23, pl. 13.

Type III with angle.

7. *Kos*, Agora Area. Conglomerate.

Geison Soffit 6, 22; Drip 8, 9.

*Boll. d'Arte*, XXX, 1936, p. 137; XXXV, 1950, pp. 54-74.

H. 0.34, bottom D. 0.70. No mutules but drip cut up as if there were. Type III without bottom horizontal.

3. 170-150 B.C. *Kos*, Asklepieion, Upper Terrace, Stoa. Marble.

Geison Soffit 6, 20; Drip 8, 10; Frieze Crown 5, 6.

*Kos*, I, p. 20, fig. 17, pls. 8, 9, 43 unten.

Fascia-splay. Cf. *PGM*, pl. XLVII, 2, 4, Priene, Lower Gymnasium, before 130; pl. XLVI, 11, Pergamon, Temple of Hera, 159-138 B.C.

11. *Kameiros*, Lower Sanctuary. Marble.

Geison Soffit 6, 18; Drip 8, 16.

Bottom D. 0.30.

#### OVOLo

##### *Crowning Mouldings*

4, 1. Last q. 6th c. *Kos*, Fragment of Epistyle Crown. Museum in Castello. Marble. Pl. 108, 1.

Ornament spacing 0.113.

Anta Capital 5, 9 may come from same building.

L. 0.23, D. 0.18. Very similar to epistyle crown or epikranitis of temple on Paros, *PGM*, pl. VII, 4, with its high point of projection and flat curve below. Cf. also other late 6th c. ovolos, *PGM*, pls. VI, VII, especially the epistyle crowns of the Delphi treasures. Cf. Siphnian Treasury, *PGM*, pl. B, 10, for ornament.

5, 9. Late 6th or early 5th c. *Kos*, Anta Capital. Museum in Castello. Marble. Pl. 109, 2.

Ornament spacing 0.06.

4, 1 may be epistyle crown from same building.

The central profile of the triple-ovolo combination of which the lowest has now become a cyma reversa, has a somewhat flattened profile at the bottom. Cf. Didyma, *PGM*, pl. X, 3, 4, and Pl. 109, 1 here on which the inverted lotus and palmette replaces egg and dart as ornament on the central profile.

4, 2. 4th c. *Kos*, Anta Capital. Museum in Castello. Marble.

Pl. 108, 3.

Ornament spacing 0.107.

L. 0.30, D. 0.30, H. 0.32. A double or more commonly triple (as this was when complete) ovolo is the common Asiatic Ionic form for an anta capital from the 6th c. on. The depth and roundness of the ovolos here suggest a date in the 4th c.

3. 3rd-2nd c. *Rhodes*, Temple of Aphrodite, Epistyle Crown. Stuccoed Conglomerate. Base 7, 9.

Uncarved shallow oval with point of projection almost to top, with a fascia crown, is paralleled in epistyle crowns of 2nd c.

4. Last 3rd 2nd c. *Kos*, Altar of Dionysos, Epistyle Crown. Marble.

Ornament spacing 0.085.

*Boll. d'Arte*, XXX, 1936, p. 138, fig. 15.

Deep rounded ovolo with point of projection almost at top, carved, with high crowning cavetto and large base astragal. Cf. *PGM*, pl. XIII, 10, 14, Magnesia, Temples of Zeus and Artemis.

5. Last 3rd 2nd c. *Kos*, Altar of Dionysos, Frieze Crown. Marble.

Ornament spacing 0.13.

*Boll. d'Arte*, XXX, 1936, p. 138, fig. 15.

Deep rounded carved ovolo without crown or base astragal used to crown a sculptured frieze as at Magnesia, Temple of Artemis, *PGM*, pl. XIII, 15, and at Teos and Lagina to which the sculptural style also is compared. Probably therefore contemporary.

6. 4th c. *Kameiros*, Fragment. Marble depot. Marble.  
Pl. 108, 5.

Ornament spacing 0.05.

Base 7, 5.

L. 0.67, D. 0.14. Lotus and palmette on crowning cyma recta, spacing 0.19. Probably the crown of an altar or pedestal, or the entablature of a small building, the cavetto-crowned ovolo being the epistyle, the cyma recta the frieze. Both the profile and the ornament are paralleled in the 1st h. 4th c.

7. 2nd c. *Rhodes*, Fragment. Museum, built into stair parapet at top right side of stair from garden down into street level of Turkish house. Marble.

Ornament spacing 0.051.

L. 0.572, top D. 0.29. Lotus and palmette on crowning cyma recta, spacing 0.051. Deep almost flat ovolo characteristic of the 2nd c. Probably an altar or a pedestal crown.

8. 2nd c. *Kos*, Fragment. Museum in Castello. Marble.

Pl. 108, 4.

Ornament spacing 0.085.

L. 0.22, top D. 0.22. Lotus and palmette on cavetto 0.09. Deep rounded ovolo characteristic of 2nd c. Might be epistyle or altar or pedestal crown. Cf. Magnesia, Temple of Artemis, epistyle (*PGM*, pl. XIII, 14).

9. *Kos*, Fragment. Museum in Castello. Marble.

Ornament spacing 0.095.

L. 0.385, H. 0.217, bottom D. 0.15. Rosettes on fascia below the ovolo. Probably an altar or pedestal crown.

10. 1st h. 3rd c. *Kos*, Asklepion, Temple B, Echinus. Marble.

Ornament spacing 0.09.

Abacus 5, 14; Column Base 7, 6.

*Kos*, I, p. 37, fig. 27, pl. 20, 9, 13.

Deep swung ovolo with high point of projection, midway between Halikarnassos and Sardis 4th c. and Magnesia early 2nd c. forms. Cf. *PGM*, pls. XXI, 39; XXII, 5, 6, 7.

11. Mid 4th c. *Kos*, Delphis Base, Crown. Museum in Castello. Marble.

Pl. 108, 2.

Base 7, 4.

Inscribed ΔΕΛΦΙΣ. This is the same type of altar of which numerous examples occur on Samos throughout the 5th century (*PGM*, pl. VIII, 9-11, 13, 14, 16-18). In fact the ornament here is very similar to that of the late 5th century examples from Samos (*PGM*, pl. B, 16, 17). However, in this case, both the ovolo profile, deeper and well rounded, and the cavetto rather than fascia crown point to a later date and can be paralleled in the mid 4th century. Cf. *PGM*, pl. XXIII, 18, Tegea, Great Altar.

12. 2nd c. *Rhodes*, Base found in Temple of Apollo. Rhodes Museum. Marble.

*La Parola del Passato* IV, 1949, pp. 80, 81.

Top  $0.51 \times 0.413$ , bottom  $0.393 \times 0.293$ . H. 0.20. Inscribed

ΔΙΟΝΥΣΙΟΝΚΑΛΛΙΚΡΑΤΕΥΣ  
ΤΟΥΔΙΟΝΥΣΙΟΥΠΟΝΤΟΡΗ  
ΓΕΝΟΜΕΝΟΝΚΟΡΟΝΑΜΦΙΘΑΛΗ

Typical 2nd c. form of uncarved ovolo almost flat, with base astragal and apophyge and heavy crowning cavetto, used both for anta capitals and for bases. Cf. *PGM*, pls. XVII, XXIV. The inscription, incomplete on this block, is dated in Imperial times on the evidence of letter forms; it was obviously cut on a reused block.

13. 2nd c. *Kameiros*, Base. Marble depot. Marble.

$0.365 \times 0.21$ , H. 0.187. No base astragal. Inscribed

[--]ΦΩΝΔΑΜΟΚΡΑΤΕΥΣ  
[--]ΑΜΙΟΥΡΓΗΣΑΣ

See note on 4, 12 for description of profile. Α Χαιρεφών Δαμοκράτης was δαμιουργός probably in 172 B.C. (Kgl. Danske Videnskabernes Selskab, Arch.-Kunsthist. Meddelelsir, II, 6, 1940, p. 27).



14. 2nd c. *Kameiros*, Base. Marble depot. Marble.

0.30 × 0.13, H. 0.158. See note on 4, 12.

5, 1. 160-100 B.C. *Kos*, Asklepieion, Altar, Coffers. Marble.

Sima Geison 3, 6, 6, 15.

*Kos*, I, p. 30, fig. 23, pl. 13.

The ovolo barely rounded on one step, straight on the other. Cf. other 2nd c. coffers at Pergamon and Ephesos, *PGM*, pl. XXI, 14, 15.

2. 170-150 B.C. *Kos*, Asklepieion, Temple A, Epistyle Back. Marble.

Sima 3, 1; Geison Crown 3, 12.

*Kos*, I, pp. 9, 10, pl. 4, 1.

No crowning or base moulding, and ovolo simplified to almost straight vertical and diagonal parts, but retains more semblance of curve than the contemporary Pergamene forms which it is noteworthy are not used here.

3. *Kos*, Temple near Altar of Dionysos, Triglyph and Metope Crown. Marble.

Sima Geison 3, 5, 8, 6, 21.

Tall shallow almost straight-sided ovolo of a Doric type for this Doric use. The closest parallel is *PGM*, pl. XXIII, 8, Priene, Agora, Stoa, but here and in 5, 4 below, the long vertical at the top leads naturally into the Pergamene fascia-splay of 5, 5-7.

4. *Kos*, Agora Area, Triglyph and Metope Crown, Southwest corner of area. Marble. Pl. 109, 6.

Sima Geison 3, 10, 8, 11.

*Boll. d'Arte*, XXXV, 1950, pp. 71-72, fig. 27.

Triglyph W. 0.33. Metope W. 0.515. See note on 5, 3. This is still more tall and shallow.

5. *Kos*, Agora Area, Triglyph and Metope Crown, Southwest corner of area. Marble.

*Boll. d'Arte*, XXXV, 1950, pp. 71-72.

Triglyph W. 0.355. Pergamene Type IV fascia-splay used in this position in Priene, Hall of Orophernes, *PGM*, pl. XXIII, 10.

6. 170-150 B.C. *Kos*, Asklepieion, Upper

Terrace, Stoa. Triglyph and Metope Crown. Marble.

Sima Geison 3, 2, 3, 6, 20, 8, 10.

*Kos*, I, p. 20, fig. 17, pls. 8, 9, 43.

See note on 5, 5.

7. *Kos*, Agora Area. Triglyph and Metope Crown. Conglomerate.

Sima Geison 3, 7, 6, 22, 8, 9.

Triglyph W. 0.34, H. 0.525. See note on 5, 5.

8. Mid 4th c. *Ialysos*, Fountain House, over pier capital. Marble.

Sima 2, 1; Geison 1, 1, 6, 5, 8, 13; Pier Capital 1, 6; Parapet 5, 12.

*Clara Rhodos*, I, fig. 64.

#### CYMA REVERSA

##### *Crowning Mouldings*

5, 9. Late 6th c. *Kos*, Anta Capital. Museum in Castello. Marble.

Pl. 109, 2.

Ornament spacing 0.08.

4, 1 may be epistyle crown from same building.

L. 0.34, bottom D. 0.115, H. 0.255. An ovolo (broken) above the cyma reversa has inverted lotus and palmette 0.06. Probably carried another ovolo with egg and dart above. The shallow profile with long almost straight lower curve is a late 6th century form (*PGM*, pl. XXV, 14, 17) and the ornament close to late 6th c. pieces from Delphi (*PGM*, pl. D). The capital must date in the late 6th c. It is, then, the earliest known example of this variant of the triple-ovolo anta capital.

10. *Kos*, Fragment. Museum in Castello. Marble.

Pl. 109, 3.

Ornament spacing 0.075.

L. 0.35, bottom D. 0.17, H. 0.16. 4th century profile and ornament.

11. *Kos*, Fragment. Museum in Castello. Marble.

Pl. 109, 4.

Ornament spacing 0.09.

L. 0.46, bottom D. 0.18. 4th c. form of cyma and ornament.

12. Mid 4th c. *Ialysos*, Fountain House, Crown of Water Basin Parapet. Marble.

*Clara Rhodos*, I, fig. 64.

Late 5th and 4th c. form. Cf. *PGM*, pl. XXXVI, 3, Delphi, Tholos, Interior Platform.

13. 3rd-2nd c. *Kameiros*, Altar of Helios. Poros.

*Clara Rhodos*, VI-VII, p. 256, figs. 43, 43 bis, p. 387.

Inscription is dated 3rd-2nd c.

14. 1st h. 3rd c. *Kos*, Asklepieion, Temple B, Abacus. Marble.

Echinus 4, 10; Column Base 7, 6.

*Kos*, I, p. 37, pl. 20, 9.

Lesbian leaf 0.062. Cf. *PGM*, pl. XXVI, 24, Halikarnassos, Mausoleion. The base astragal is missing here, but there is still no crowning fascia such as is added in the 2nd c. at Magnesia.

15. *Kos*, Crowning Moulding. Built against back of Altar of Dionysos in door of Roman house.

Top D. 0.32. 3rd or 2nd c. form.

16. 4th c. *Lindos*, Edicola at right of vaulted entrance to Castle, Step Rebate.

Cf. *PGM*, pl. XXXIV, 26, Olympia, Echo Colonnade with a similar cyma reversa.

17. 170-150 B.C. *Kos*, Asklepieion, Temple A, Step Rebate. Marble.

Sima 3, 1; Geison 3, 12; Epistle Back 5, 2.

*Kos*, I, p. 7, pl. 3.

Cf. *PGM*, pl. XXXIV, 30, a 2nd c. example from Corinth where the cyma reversa has a similar form.

6, 1. beg. 2c. B.C. *Kos*, Harbor Quarter, Sacellum, Podium Crown. Marble.

Podium Base 7, 2.

*Boll. d'Arte*, XXX, 1936, p. 137; XXXV, 1950, pp. 62-63, figs. 7-10.

Cf. the cyma reversa podium crowns of Italic 3rd to early 1st c. B.C. temples, e. g., at Lanu-

vium, Gabii, Ostia, Tivoli, and Rome, Forum Argentina and Forum Boarium.

2. *Kos*, Harbor Quarter, Sanctuary, Stoa, Podium Crown. Limestone.

Pl. 109, 5.

Podium Base 7, 3.

*Boll. d'Arte*, XXX, 1936, p. 136, fig. 12; XXXV, 1950, pp. 66-67, figs. 7, 9, 13, 14.

See note on 6, 1.

#### CYMA REVERSA

##### *Geison Soffit*

6, 3 and 4. 2nd h. 4th c. *Lindos*, Temple of Athena Lindia. Poros.

*Mem. Inst. Storia-Arch. Rodi*, II, pp. 14-15; III, p. 30, pls. XXVI, XXVII.

The favored 4th c. proportions of greater depth than height and smaller projecting curve than inner curve. Cf. *PGM*, p. 68, Type I.

5. Mid 4th c. *Ialysos*, Fountain House. Marble.

Sima 2, 1; Geison Crown 1, 1; Drip 8, 13; Pier Capital 1, 6, 5, 8; Parapet 5, 12.

*Clara Rhodos*, I, pp. 79-82, figs. 63, 64.

4th c. proportions and fine curves.

6. 2nd h. 4th c. *Lindos*, Stoa, Raking Geison. Stuccoed Conglomerate.

Sima 2, 2; Geison Crown 1, 2.

Curves more nearly same size than in preceding. This too a 4th c. type with depth still greater than height and curves cut with good easy swing.

7. 2nd h. 4th c. *Lindos*, Stoa, Horizontal Geison. Stuccoed Conglomerate.

Geison Crown 1, 3; Drip 8, 1.

See note on 6, 6.

8. 2nd h. 4th c. *Lindos*, Stoa. Conglomerate.

Sima 2, 6; Geison Crown 1, 4; Drip 8, 2.

Mutules  $0.35 \times 0.195 \times 0.03$ . Via 0.093. 4th c. proportions and curves.

9 and 10. 3rd c. *Kameiros*, Stoa. Stuccoed Poros.

Sima Geison 2, 9; Sima Geison 2, 10; Drip 8, 3.

*Clara Rhodos*, VI-VII, p. 248, figs. 32-34.

The types with depth *less* than height are characteristic of the 3rd c. Those with the projecting curve much smaller than the inner curve, as here (Type VII), are especially favored. The curves are still well swung.

11. *Rhodes*, Sanctuary of Apollo Erethimios. Stuccoed Poros.

Sima Geison 2, 7; Drip 8, 14.

Similar proportions to last but angular awkward curves suggest 2nd c.

12. *Kameiros*, Lower Sanctuary, Lying E of Temple. Stuccoed Poros.

Sima Geison 2, 8; Drip 8, 15.

Shallow proportions and awkward curves, probably 2nd c.

13. 2nd h. 4th c. *Ialysos*, Temple of Athena. Limestone.

Geison Crown 1, 5; Drip 8, 4.

*Clara Rhodos*, I, p. 74.

Reverse curve hardly exists, profile almost a flat ovolo. Proportions more suitable to a cyma reversa than an ovolo and the slightest suggestion of a curve. No close parallels.

14. *Kos*, Agora Area, Ionic Geison. SW corner. Marble.

Sima Geison 2, 12; Drip 8, 17.

As in the preceding, the reverse curve which makes a cyma reversa out of an ovolo is almost non-existent and the profile is practically a Pergamene ovolo, yet the barest suggestion of a curve exists and the proportions are slightly more appropriate to a cyma reversa than to an ovolo.

15. 160-100 B.C. *Kos*, Asklepieion, Altar. Marble.

Sima Geison 3, 6; Drip 8, 19; Coffers 5, 1; Podium Base 7, 1.

*Kos*, I, p. 30, fig. 23, pl. 13.

Larger outer than inner curve characterizes three of the favorite 2nd c. types. Cf. *e.g.* PGM, pl. XXXII, 46.

16. *Kos*, Temple near Altar of Dionysos. Museum in Castello. Marble.

Sima Geison 3, 4; Drip 8, 12.

Deeper than high, with curves about equal and still nicely flowing. Represents continuance into the 2nd c. of one of the better earlier forms.

17. *Kos*, Ionic Sima Geison. Museum in Castello. Marble.

Sima Geison 2, 11; Drip 8, 18.

More characteristically 2nd c. in the quality of the curves.

18. *Kameiros*, Lower Sanctuary. Marble.

Geison Crown 3, 11; Drip 8, 16.

Proportions of one of the best earliest types but curves are sharp and more awkward.

19. *Kos*, Doric Geison. Museum in Castello. Marble.

Geison Crown 3, 13; Drip 8, 5.

The excessively large and rounded inner curve with the resultant tiny very round outer curve is one of the late tendencies that continues into Roman times.

20. 170-150 B.C. *Kos*, Asklepieion, Upper Terrace, Stoa. Marble.

Sima Geison 3, 2, 3; Drip 8, 10; Triglyph Crown 5, 6.

*Kos*, I, p. 20, fig. 17, pls. 8, 9, 43 unten.

Roundness as distinct from oval character of curves is one of 2nd c. tendencies.

21. *Kos*, Temple near Altar of Dionysos. Marble.

Sima Geison 3, 8; Drip 8, 7; Triglyph Crown 5, 3.

Similar to 6, 20.

22. *Kos*, Agora Area. Conglomerate.

Geison Crown 3, 7; Drip 8, 9; Triglyph Crown 5, 7.

*Boll. d'Arte*, XXX, 1936, p. 137; XXXV, 1950, pp. 54-74.

Cf. PGM, pl. LXXV, 10, Priene, Agora, Colonnade; pl. XXXII, 61, Delos, Agora of Italians. Strong cut back of lower curve not common and paralleled only in late 2nd c. buildings.



23. *Kos*, Doric Sima Geison. Museum in Castello. Marble.

Geison Crown 3, 9; Drip 8, 8.

Mutules  $0.30 \times 0.155 \times 0.004$ . Via 0.055.  
See note on 6, 22.

#### CYMA REVERSA

##### Base Mouldings

5, 18. *Rhodes*, Sanctuary of Apollo Erethimios, Threshold. Marble.

*Clara Rhodos*, II, p. 102, fig. 25.

Dark blue marble. Cf. *PGM*, pl. XXXVII, 15, Threshold of Pergamon, Temple of Hera, 159-138 B.C. This may well be roughly contemporary and belong to the same building as one of the two sima geison blocks (2, 5, 7) found in the area, which are probably 2nd c.

7, 1. 160-100 B.C. *Kos*, Asklepieion, Altar, Podium Base. Marble.

Sima Geison 3, 6, 6, 15; Coffers 5, 1.

*Kos*, I, p. 20, pl. 14, 14, 18.

This combination has its closest parallels in the interior platform of the Delphi Tholos (*PGM*, pl. XXXVII, 5) and the Stratos pro-naos threshold (*PGM*, pl. XXXVII, 12). Here the cavetto is deeper to give more projection.

2. beg. 2nd c. B.C. *Kos*, Harbor Quarter, Sacellum, Podium Base. Marble.

Podium Crown 6, 1.

*Boll. d'Arte*, XXXV, 1950, pp. 62-63, figs. 7-10. Cf. the cyma reversa podium bases of Italic temples of the 2nd and early 1st centuries.

3. *Kos*, Harbor Quarter, Sanctuary, Stoa, Podium Base. Limestone.

Pl. 109, 5.

Podium Crown 6, 2.

*Boll. d'Arte*, XXXV, 1950, pp. 66-67, figs. 7, 9, 13, 14. See note on 7, 2.

4. *Kos*, Delphis Base. Museum in Castello. Marble.

Crown 4, 11.

The projecting fillet is archaistic here as in *PGM*, pl. XXXVII, 17, the Priene Altar of Athena.

5. 4th c. *Kameiros*, Fragment of Base. Marble depot. Marble.

Pl. 108, 6.

Crown 4, 6.

Lesbian leaf spacing 0.062, guilloche on torus, bead and reel 0.031 on astragal. Regular combination for anta bases and altars, etc. The contemporaneity of the moulding forms and the similarity of the marble suggest that this base belongs with the crowning moulding 4, 6.

#### CAVETTO

##### Base Moulding

7, 1. 160-100 B.C. *Kos*, Asklepieion, Altar, Podium Base. Marble.

Sima Geison 3, 6; 6, 15; Coffers 5, 1.

*Kos*, I, p. 20, pl. 14, 14, 18.

See note under "Cyma Reversa."

5. 4th c. *Kameiros*, Fragment of Base. Marble depot. Marble.

Pl. 108, 6.

Crown 4, 6.

See note under "Cyma Reversa." Cavetto deeper than in otherwise comparable bases of Ivy Sarcophagi from Sidon (*PGM*, pl. XXXVIII, 9-11).

4. *Kos*, Delphis Base. Museum in Castello. Marble.

Crown 4, 11.

#### CYMA RECTA

##### Base

7, 10. 2nd c. *Kos*, Base. Lying in front of Altar of Dionysos. Marble.

L. 0.93, H. 0.20, top D. 0.25. The cyma recta is used rarely as a base moulding in Greek times; there are two combinations of cyma recta and torus similar to this, both of the 2nd c., at Pergamon and Delos (*PGM*, pl. XLIX, 5, 6). Neither has the astragal added here.

#### HALF ROUND

##### Bases

7, 7. *Lindos*, Naiskos, Anta Base. Under Castle of Knights. Marble.

Local blue marble. The forms of torus (top one far less than half round) and scotia strongly projecting and on diagonal axis point to 2nd c. date. Cf. *PGM*, pls. LXVII, 5, 8, 9, LXVIII, 1, 2, 4.

8. *Lindos*, Column Base. West of Temple. Conglomerate.

Top diam. 0.51, H. 0.64.

9. *Rhodes*, Temple of Aphrodite, Toichobate. Conglomerate.

L. 0.915, H. 0.745, top D. 0.615. The combination of one torus with a scotia is not common. Cf. 5th and 4th c. bases of Athens, Temple of Nike, and of Olympia, and the torus and cavetto column base of Tegea and pier base of Epidauros theatre (*PGM*, pls. LXVI, 2, 8, 9, 10, LXVIII, 6). The forms of torus and scotia here appear to be later.

5. 4th c. *Kameiros*, Fragment of Base. Marble depot. Marble. Pl. 108, 6.

Crown 4, 6.

Guilloche on torus which was a full half round originally; the lower half is worn.

10. *Kos*, Base. Lying in front of Altar of Dionysos. Marble.

L. 0.93, H. 0.20, top D. 0.25. See note under "Cyma Recta—Base."

#### SCOTIA

7, 6. 1st h. 3rd c. *Kos*, Asklepieion, Temple B, Column Base. Marble.

Abacus 5, 14; Echinus 4, 10.

*Kos*, I, p. 38, pl. 20, 10.

Scotia of Asiatic Group III (*PGM*, p. 155) type used at Ephesos and Delphi. The lower of the two scotiae separated by a pair of astragals projects farther than in the 6th and 5th c. but not yet as much as it will in the 2nd c.

7. *Lindos*, Naiskos, Anta Base. Under Castle of Knights. Marble.

Local blue marble. See note under "Half Round—Bases."

8. *Lindos*, Column Base. West of Temple. Conglomerate.

The scotia has a fillet projecting from its center and is broken at the bottom so it is uncertain whether another torus projected below.

9. *Rhodes*, Temple of Aphrodite, Toichobate. Conglomerate.

See note under "Half Round—Bases."

#### GEISON DRIP

##### *Doric*

8, 1. 2nd h. 4th c. *Lindos*, Stoa. Stuccoed Conglomerate.

Sima 2, 2; Geison Crown 1, 3; Geison Soffit 6, 7.

Typical 4th c. form with deep undercut not as broad as earlier, still curved. Cf. *PGM*, pl. LXXIV, 3-6, especially 3.

2. 2nd h. 4th c. *Lindos*, Stoa. Conglomerate.

Sima 2, 6; Geison Crown 1, 4; Geison Soffit 6, 8.

Fascia shorter, *i. e.*, mutule set higher up in undercut. Cf. *PGM*, pl. LXXIV, 9, 14.

3. 3rd c. *Kameiros*, Stoa. Stuccoed Poros.

Sima Geison 2, 10; Geison Soffit 6, 10.

*Clara Rhodos*, VI-VII, p. 248, figs. 32-34.

The undercut is still reasonably deep but the tip is now much broader, almost equals breadth of undercut. Cf. *PGM*, pl. LXXIV, 12.

4. 2nd h. 4th c. *Ialysos*, Temple of Athena. Limestone.

Geison Crown 1, 5; Geison Soffit 6, 13.

*Clara Rhodos*, I, p. 74.

Tip broader than undercut which is still deep, unusually so for its narrowness.

5. *Kos*, Doric Geison. Museum in Castello. Marble.

Geison Crown 3, 13; Geison Soffit 6, 19.

Undercut deep, slightly curved and still broader than tip; fascia ends below tip and inclines inward. Parallels are with 4th c. forms, *PGM*, pl. LXXIV, 18, 19, but other profiles on the block are 2nd c. forms.

6. 170-150 B.C. *Kos*, Asklepieion, Temple A. Marble.

Geison Crown **3**, 12.

*Kos*, I, pp. 10, 11; pls. 4; 5, 8; 26, 20-22.

The well curved, deep and broad undercut appears to be archaistic here; the regular 2nd c. form has been a tiny shallow undercut behind a very broad tip, cf. **8**, 7-12. The sloping fascia here is not regular with the other 4th c. characteristics of this form.

7. *Kos*, Temple near Altar of Dionysos. Marble.

Sima Geison **3**, 8; Geison Soffit **6**, 21.

The small round undercut is typical of 2nd c. drips (*PGM*, pl. LXXIV, 23-26) but the tip, excessively broad in proportion to the undercut, seems to be locally favorite.

8. *Kos*, Doric Geison. Museum in Castello. Marble.

Geison Crown **3**, 9; Geison Soffit **6**, 23.

9. *Kos*, Agora Area. Conglomerate.

Geison Crown **3**, 7; Geison Soffit **6**, 22.

*Boll. d'Arte*, XXXV, 1950, pp. 54-73.

10. 170-150 B.C. *Kos*, Asklepieion, Upper Terrace Stoa. Marble.

Sima Geison **3**, 2, 3; Geison Soffit **6**, 20.

*Kos*, I, p. 20, fig. 17, pls. 8, 9, 43 unten.

Undercut a small notch with straight sloping sides, rounded at top.

11. *Kos*, Agora Area. SW corner. Marble. Geison Crown **3**, 10.

*Boll. d'Arte*, XXXV, 1950, pp. 71-72, fig. 27.

Undercut tiny and round.

12. *Kos*, Temple near Altar of Dionysos. Marble.

Sima Geison **3**, 4; Geison Soffit **6**, 16.

Undercut not rounded, but cut square.

#### GEISON DRIP

##### *Ionic*

13. Mid 4th c. *Ialysos*, Fountain House. Limestone.

Sima **2**, 1; Geison Crown **1**, 1; Geison Soffit **6**, 5.

*Clara Rhodos*, I, pp. 79-82.

Over Doric frieze and epistyle. Narrow tip swings with gentle curve into the horizontal soffit.

14. *Rhodes*, Sanctuary of Apollo Erethimios. Stuccoed Poros.

Sima Geison **2**, 7; Geison Soffit **6**, 11.

No dentils. Broader tip but with curved soffit.

15. *Kameiros*, Lower Sanctuary. Lying E of temple. Stuccoed Poros.

Sima Geison **2**, 8; Geison Soffit **6**, 12.

No dentils. Broad tip, soffit swings up, as in 5th c. Ionic and its imitators, *PGM*, pl. LXXIV, 30-32, 35.

16. *Kameiros*, Lower Sanctuary. Marble.

Geison Crown **3**, 11; Geison Soffit **6**, 18.

Over Doric frieze and epistyle. Less broad tip, long horizontal soffit.

17. *Kos*, Agora Area. SW corner. Marble.

Sima Geison **2**, 12; Geison Soffit **6**, 14.

Ionic. Broad tip, sloping soffit.

18. *Kos*, Ionic Geison. Museum in Castello. Marble.

Sima Geison **2**, 11; Geison Soffit **6**, 17.

Ionic.

19. 160-100 B.C. *Kos*, Asklepieion, Altar. Marble.

Sima Geison **3**, 6; Geison Soffit **6**, 15; Podium Base **7**, 1.

*Kos*, I, p. 30, fig. 23, pl. 13.

Ionic. Horizontal soffit.

LUCY T. SHOE



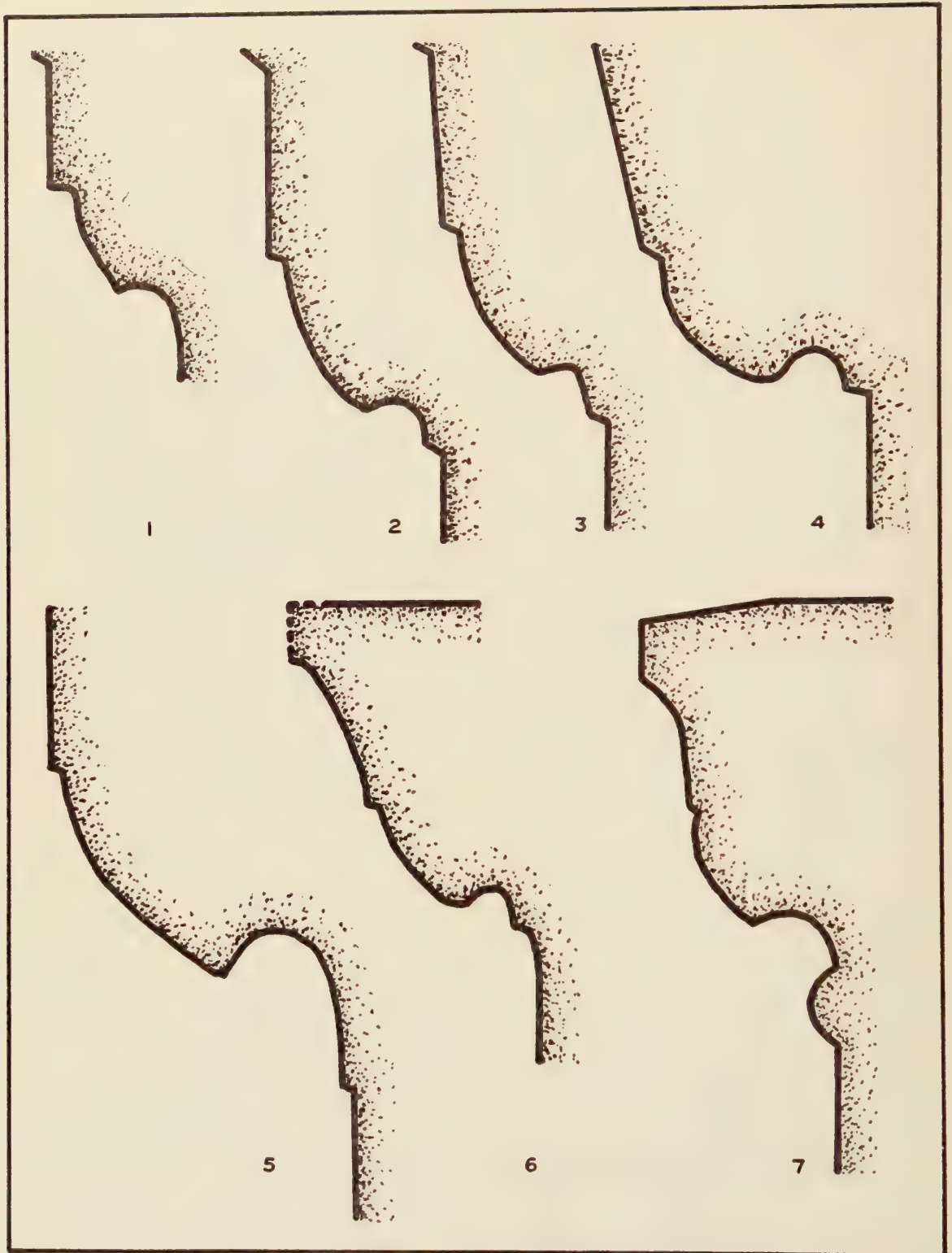


Fig. 1 (Scale 1/1). Hawksbeak

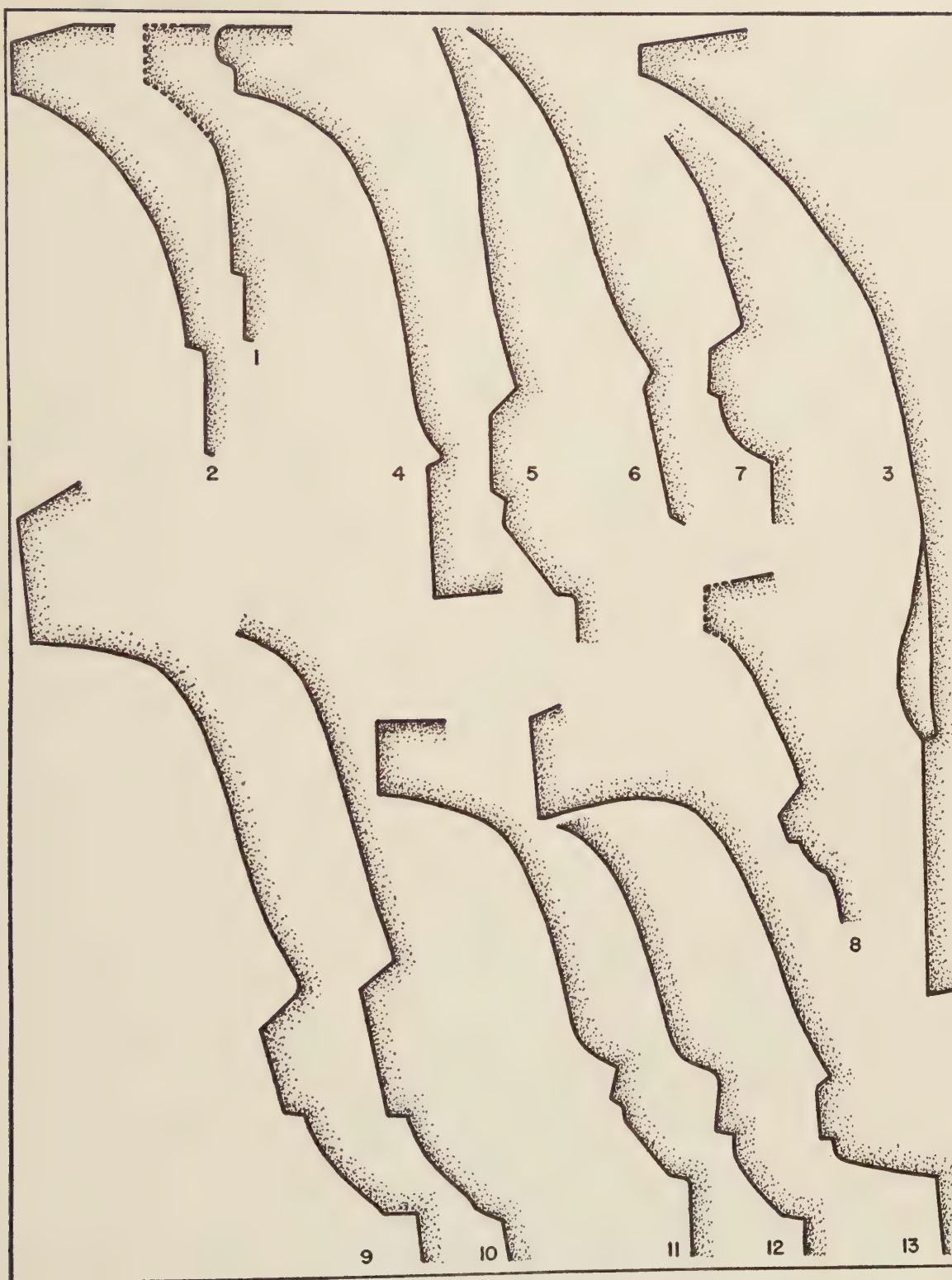


Fig. 2 (Scale 1/2). Cyma Recta and Ovolo

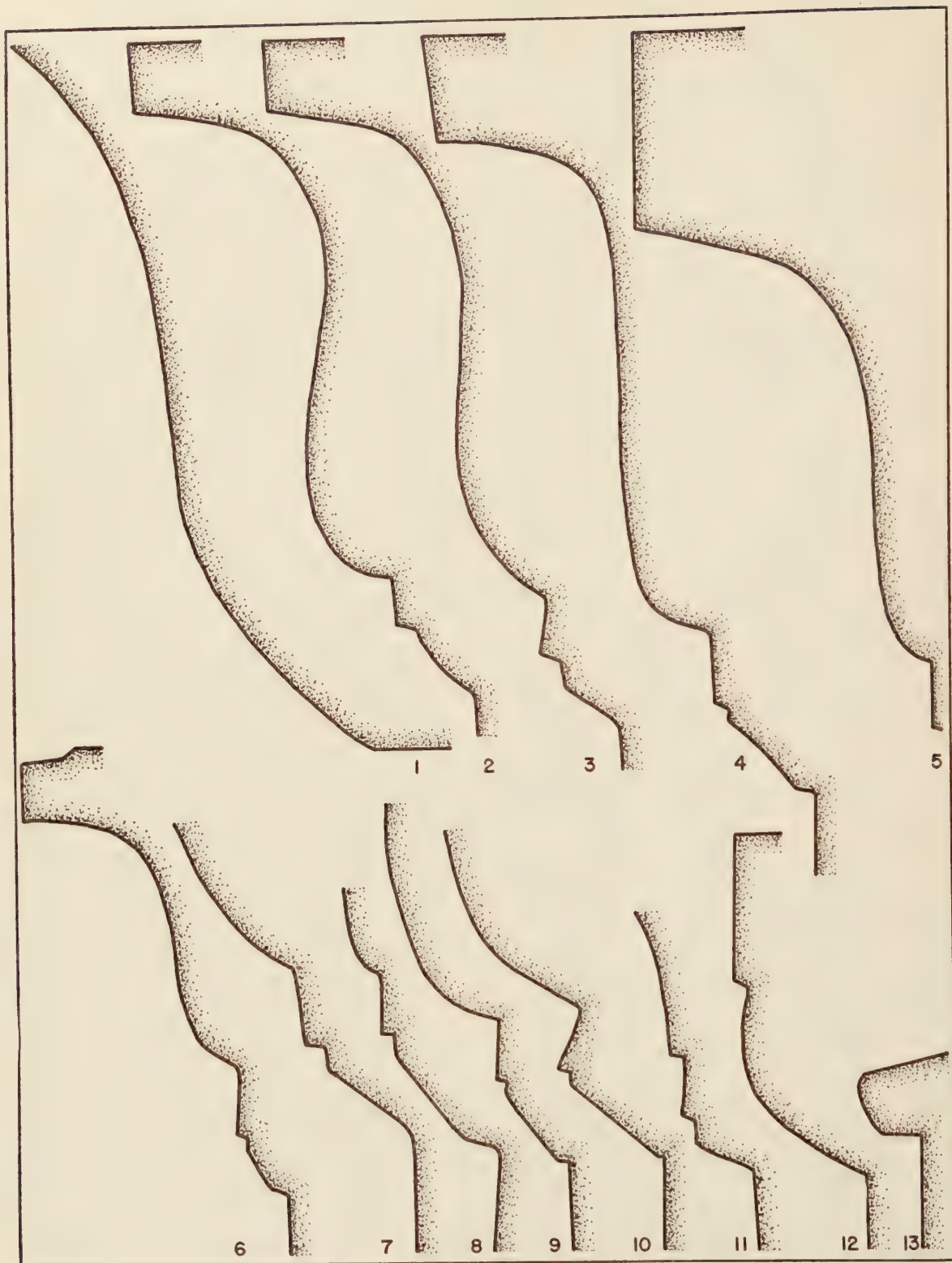


Fig. 3 (Scale 1/2). Cyma Recta and Ovolo



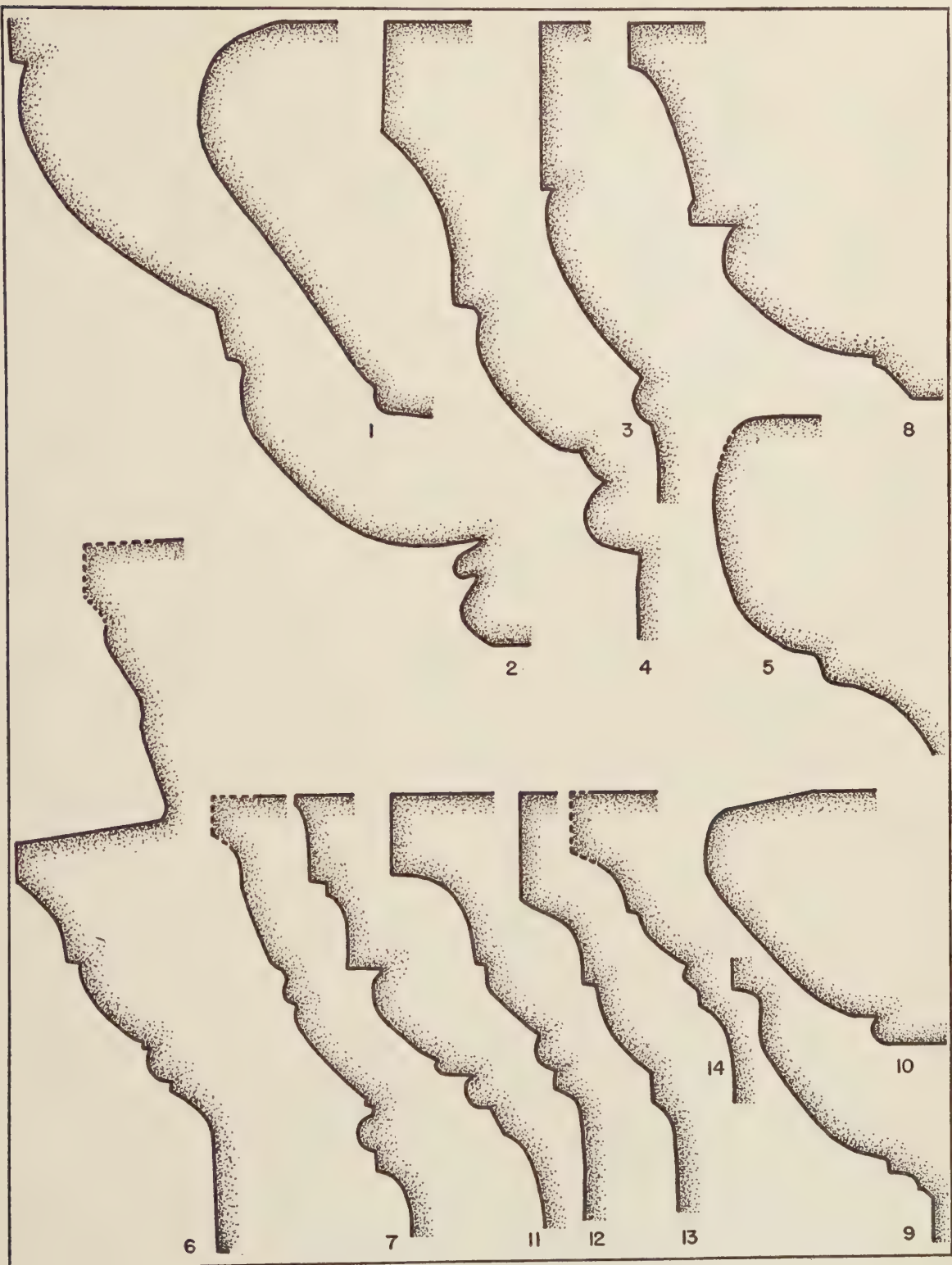


Fig. 4 (Scale 1/2). Ovolo and Cavetto

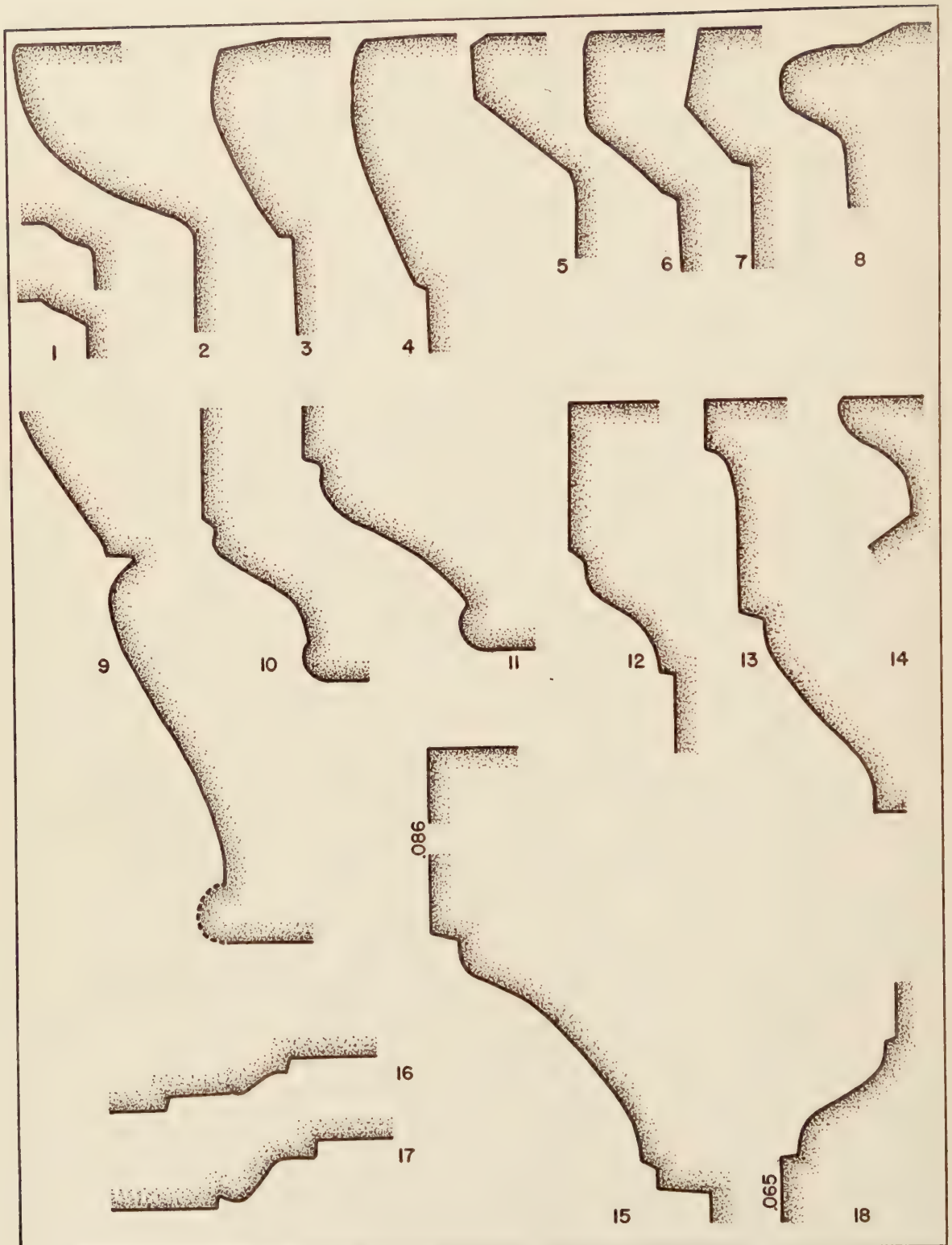


Fig. 5 (Scale 1/2). Ovolo and Cyma Reversa

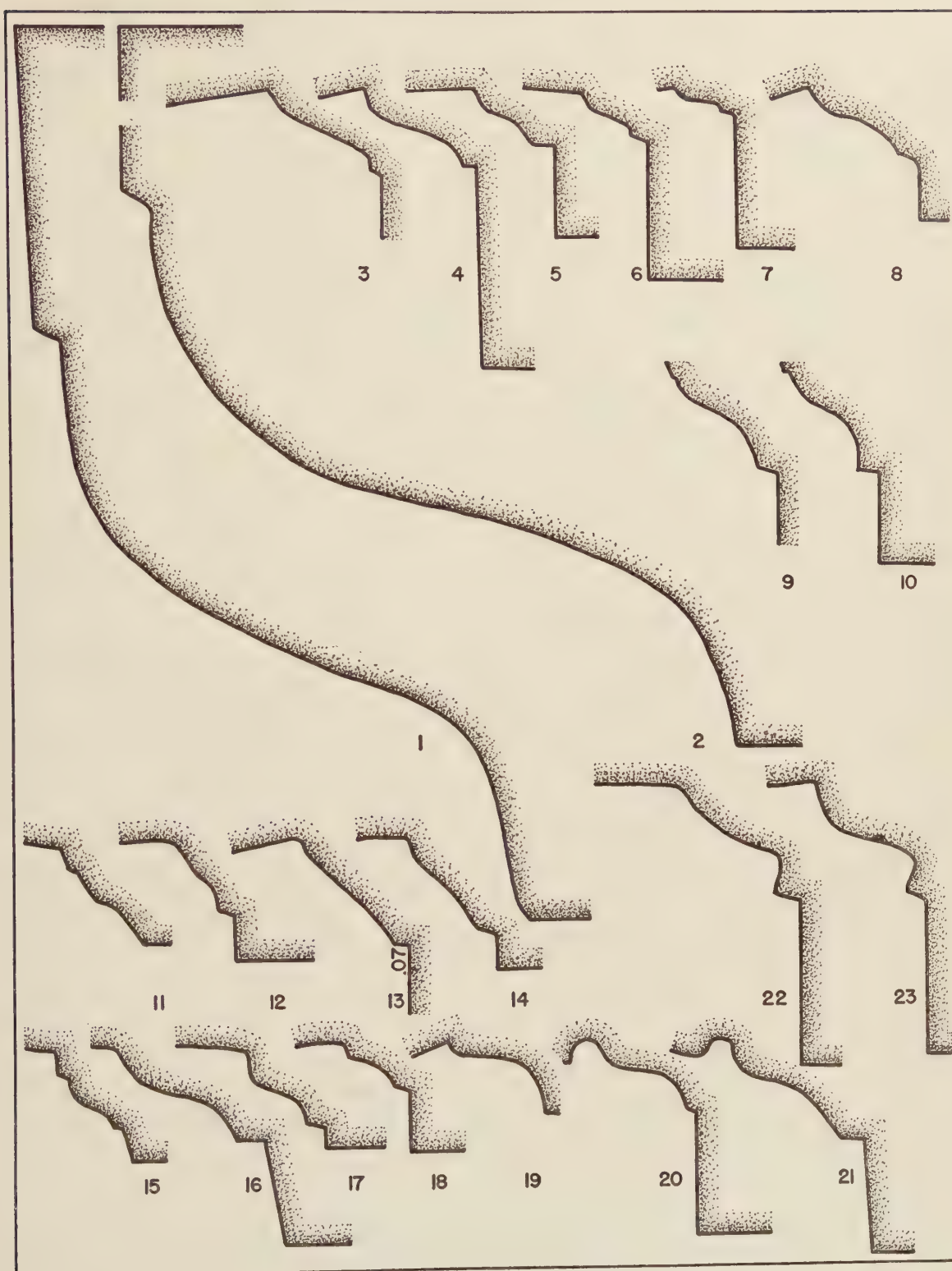


Fig. 6 (Scale 1/2). Cyma Reversa



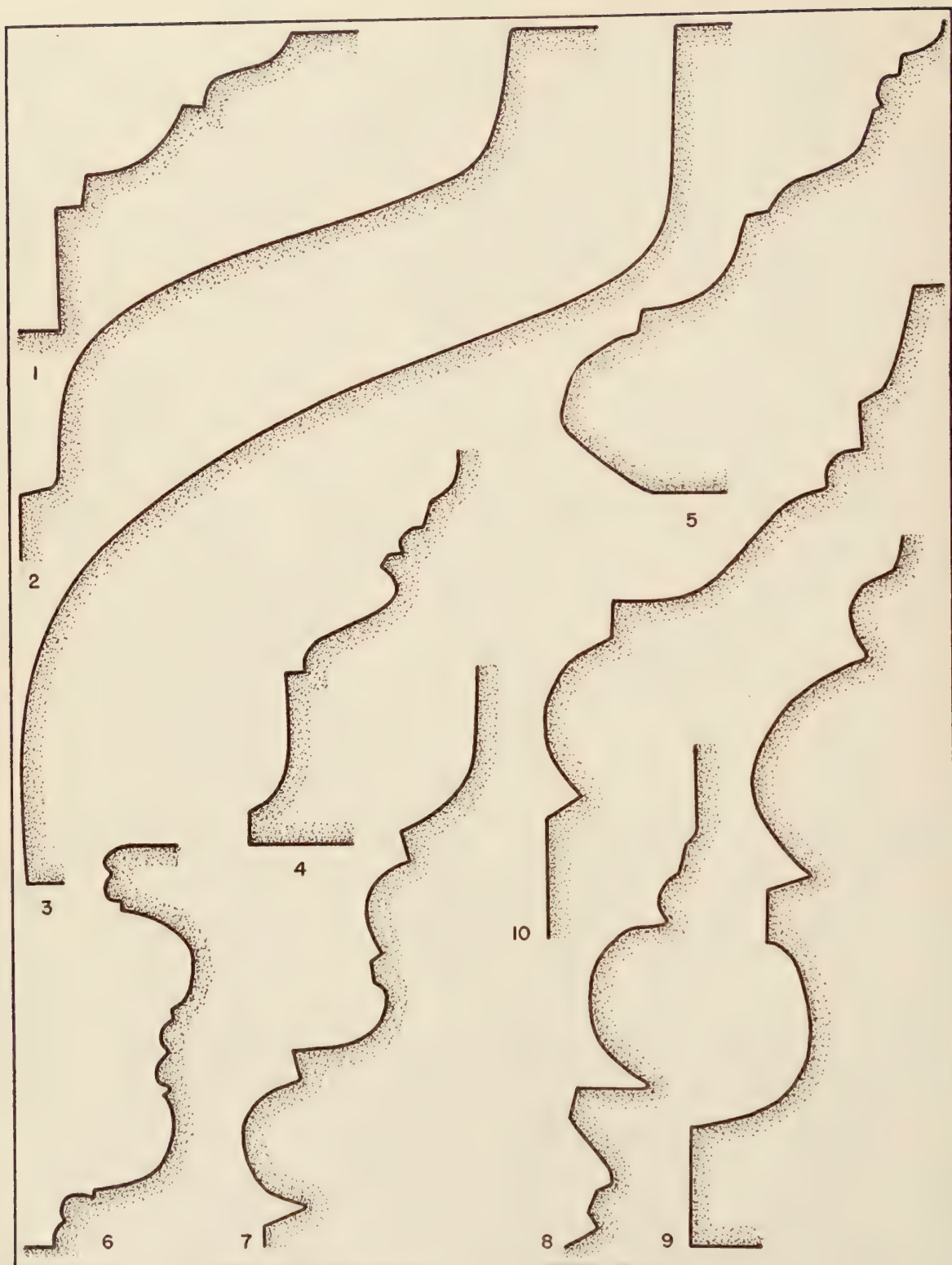


Fig. 7 (Scale 1/2). Base Mouldings

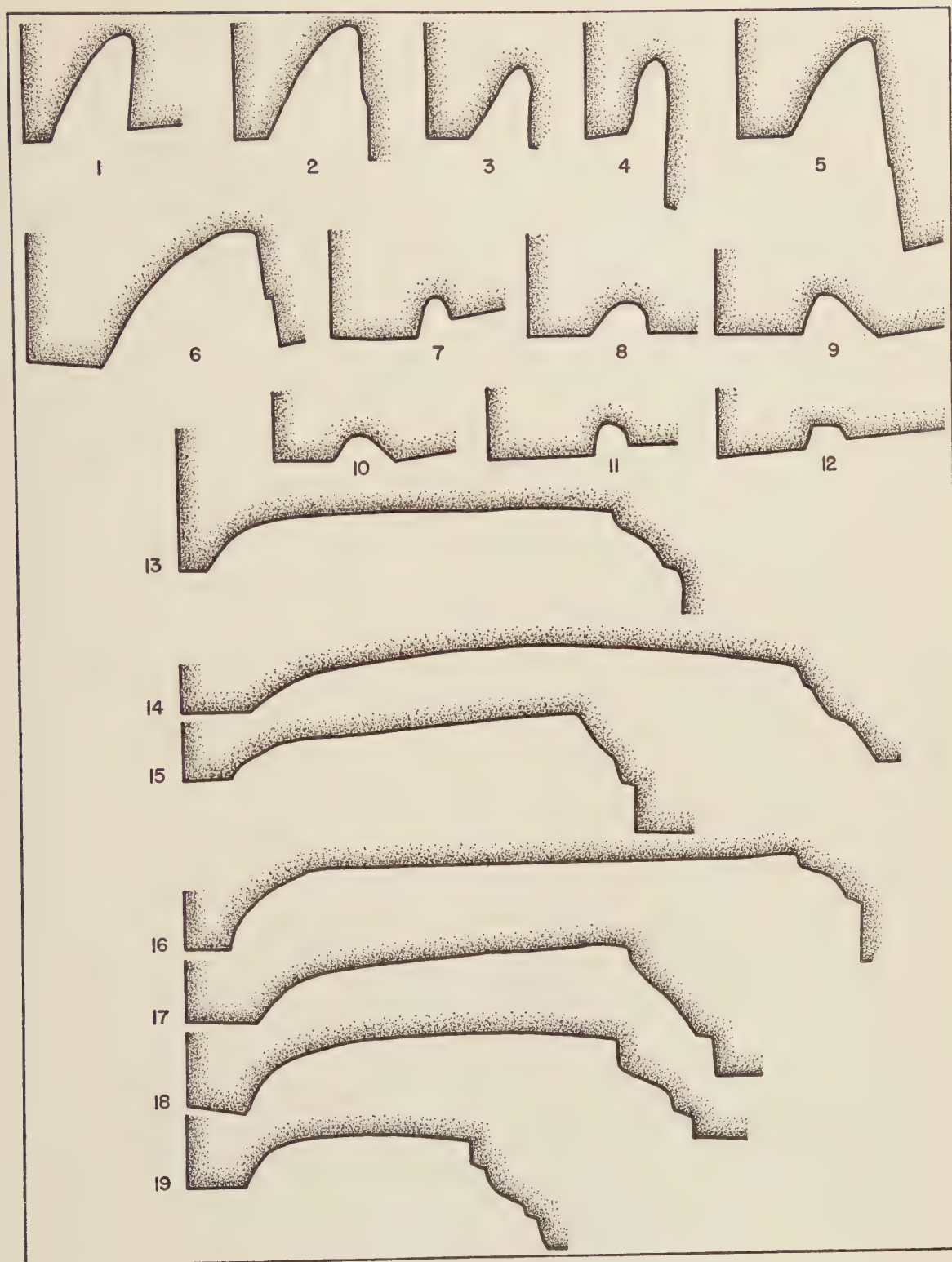


Fig. 8 (Scale 1/2). Geison Drip

## TERRACOTTA ALTARS FROM CORINTH

(PLATE 110)

SINCE the first discovery of a painted altar in 1932,<sup>1</sup> the excavations at Corinth have brought to light many new fragments of similar dedications, and others of unmistakably Corinthian origin have been found elsewhere.<sup>2</sup> Both in shape and size these altars resemble those found at several Greek sites in Italy,<sup>3</sup> but the Corinthian examples are for the most part earlier. If there is any connection between the two groups, it must be assumed that the type originated at Corinth and from there was introduced in the colonies of Magna Graecia. A comparatively well preserved example and two smaller fragments were found at Corinth in 1949.

The altar shown in figures 1-3 and Plate 110a-c<sup>4</sup> was discovered in a garden well dug in the plain below the modern village, not far from the North Cemetery which was excavated by T. L. Shear in 1929-30. The fragments were turned over to the guard of the Archaeological Museum by the owner of the well, Anastasios Yambourannis. The circumstances of discovery did not permit accurate observation, but it is likely that the altar formed part of a tomb offering, since pieces of a stone sarcophagus appeared in the well at about the same level. The flow of water was so copious that further investigation of the place proved impractical.

The altar is very nearly complete; only the lower portion of the right flank, the lower right corner of the front panel, and parts of the undecorated back are missing. The decorations are poorly preserved. Since the altar was found below water level, much of the glaze, especially the purple, has disappeared, leaving only faint traces of color and the incised lines visible. This is particularly true of the principal motive on the front panel.

The dimensions of the new altar<sup>5</sup> with one exception correspond very closely to those of the less well preserved specimens from Corinth published in a previous article in this journal.<sup>6</sup> The height is slightly less than that of the Pygmy and Crane

<sup>1</sup> See Mary Swindler, *A.J.A.*, XXXVI, 1932, pp. 512-520.

<sup>2</sup> M. Z. Pease, *Hesperia*, VI, 1937, pp. 313-314, Nos. 240-242; C.V.A., *Robinson Collection*, fasc. 1, pl. 48 (cf. Beazley in *J.H.S.*, LIV, 1934, p. 90); *B.S.A.*, XXXII, 1931-32, p. 260; S. S. Weinberg, *A.J.A.*, XLIII, 1939, p. 592; and O. Broneer, *Hesperia*, XVI, 1947, pp. 214-223.

<sup>3</sup> Elizabeth Jastrow, *A.J.A.* L, 1946, pp. 67 ff.; Inez Scott Ryberg, *An Archaeological Record of Rome*, p. 155.

<sup>4</sup> Inventory No. M.F. 9422. The drawings for figures 1 to 3 were made by Marian Welker, Fulbright Scholar to Greece 1949-1950. I am indebted to Miss Welker for minute observations of certain details, particularly the discovery of the wreath on the head of the reclining figure.

<sup>5</sup> Dimensions: Height, 0.137 m.; total preserved length at top, 0.258 m.; total estimated length at top, 0.269 m.; width at top, 0.118-0.122 m.; height of decorated panels 0.085 m.; length of front panel, 0.245 m.; width of panel at left end 0.109 m.; thickness of walls, 0.02-0.03 m.

<sup>6</sup> Cf. Broneer, *loc. cit.*, pp. 214-218.



altar,<sup>7</sup> and the height of the painted panels is exactly the same as that of the altar with the Siren and Swan, and only 4-6 mm. less than the height of the panels on the Pygmy and Crane altar. None of the published fragments preserves the length of the panels, but the figure of the siren on the altar found in 1946 would require a panel 0.12-0.14 m. in length, just half the length of the front panel on the new altar. Like all the other altars of the series the new specimen is hollow underneath, but a median wall with a toothed edge (see profile, section C-D, Fig. 2), divides the hollow into two compartments of about equal dimensions (Fig. 1). The left flank, which is complete, is less than half as wide as the length of the front panel. The width of the top is about the same as that of a published fragment from the tile factory,<sup>8</sup> and the (estimated) length is somewhat less than twice the (estimated) length of the same piece.<sup>9</sup> This remarkably close correspondence in dimensions indicates that there was a standard size, with slight variations, and that the altar under discussion was conceived as a double specimen, having the same width but twice the length of the common variety.

Unlike the smaller examples, which usually have a depression in the top surface the new altar is flat on top, and around the edge is a painted border in purple, ca. 1 cm. wide (see Pl. 110a).

The material is the pinkish buff clay of Corinth, lighter on the surface and slightly reddish on the inside. It is the same type of clay as that used for Corinthian tiles, rather coarse and gritty except on the surface which is smooth. The altar was made in a mould. At first a thin layer of fine clay was applied, covering all the sides of the mould, and then the walls of the altar were built up with the coarse clay which is less fragile than the fine clay used for the surface. The mouldings at the top, made entirely of the fine variety of clay, have a tendency to break away.

The decoration is applied in two colors, black and purple,<sup>9a</sup> but the glaze seems to have been lightly fired and the colors have faded from being immersed in the water. The black is now a dull grayish brown, and the purple a reddish brown with a slight purple tinge. The front and two sides carry a moulding at the top consisting of a plain band, a Doric hawkbeak, and a small astragal. The flat band at the top is decorated with a key pattern with alternating purple and black squares separated by a single broken line in black. In the centers of the squares are carelessly scratched crosses. The hawkbeak moulding has a tongue pattern with alternating purple and black tongues outlined with a reserved band in red-figured technique and arranged so that the colors of the tongues below the "beak" alternate with those on the beak. Through

<sup>7</sup> Cf. Swindler, *loc. cit.*, pp. 512 and 513.

<sup>8</sup> Cf. Broneer, *loc. cit.*, p. 218.

<sup>9</sup> Total (estimated) length of altar from tile factory: 0.146 m., including width of moulding. With this cf. half of new altar at top = 0.1345 m., to which should be added width of the moulding on one side, 0.024 m., a total of 0.1585 m. The altar in the Robinson Collection measures 0.115 m. in height; 0.127 m. in width (= length); 0.127 m. in depth (= width).

<sup>9a</sup> In the legend of Fig. 3 red is used instead of purple.

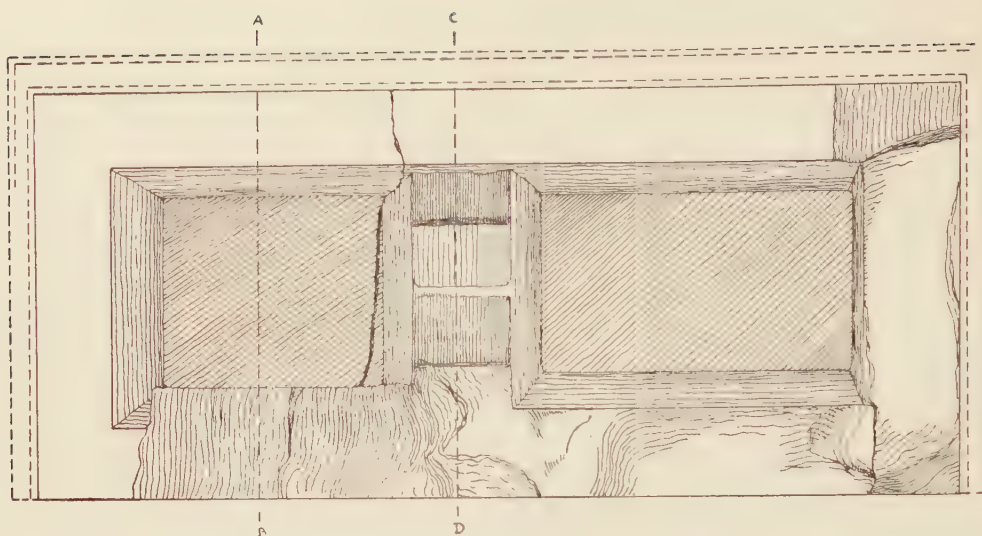


Fig. 1. Terracotta Altar. Bottom.

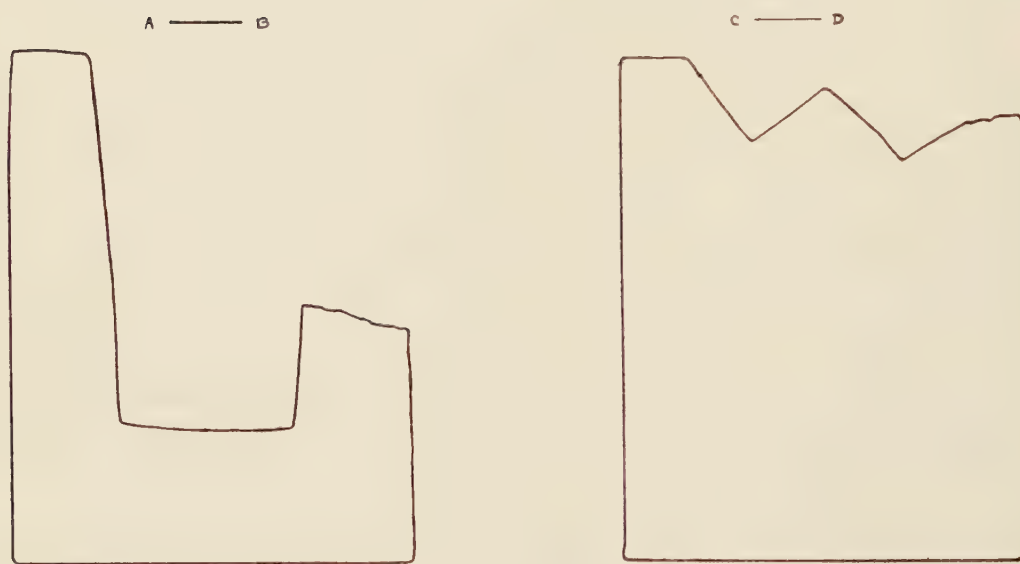


Fig. 2. Terracotta Altar, Sections seen from Below.

the middle of each tongue, both above and below, runs an incised line. The tongues are wider (27 mm.) than those on the Pygmy-and-Crane altar (13 mm.). The narrow astragal below the tongue pattern is decorated like a barbershop pole with alternating slanting sections of purple and black, separated by sections of equal width in the color of the clay.

The figured decoration is in the black-figured technique, with the nude parts rendered in purple and the clothing in black and with a rather sparing use of incised lines. In the center of the front panel (Pl. 110a and Fig. 3) is a reclining male figure, resting on his left arm and holding a cup in his right hand. The features of the face are nearly obliterated, but traces of a beard and of a leafy wreath may be distinguished. The drapery falls over the left arm and covers the lower part, leaving the upper part of the body exposed. Of the purple color only small patches remain, but the black of

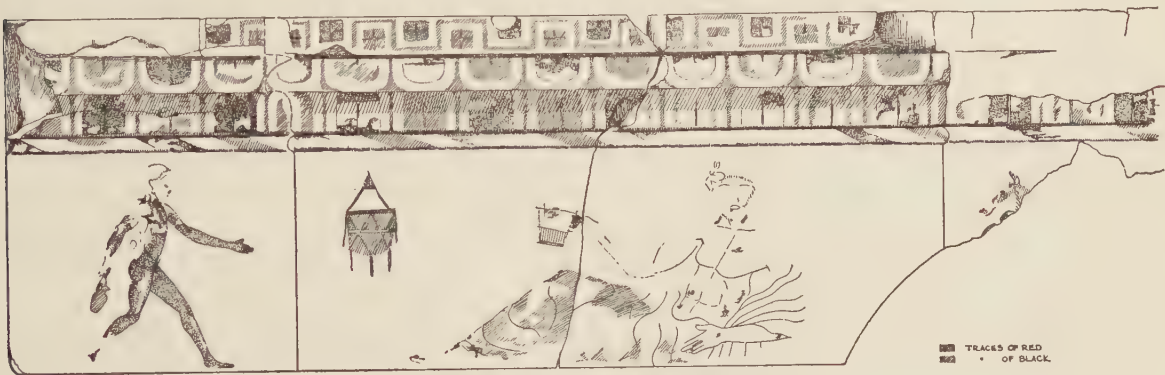


Fig. 3. Terracotta Altar from Corinth.

the drapery is better preserved. The cup in his hand is a skyphos with rays at the bottom. In the field to the left is a basket rendered in black with purple fillets and incised lines forming two rows of triangles separated by a double line.

On the left panel (Pl. 110b and Fig. 3) is a nude male figure striding toward the right. He carries a pitcher in his right and his left hand is extended toward the front in a gesture of rapid motion. His hair and the pitcher were in black, the rest of the figure in purple. Incised lines are used very sparingly. The decoration on the right flank (Pl. 110c and Fig. 3) is missing, except for the head of some animal, probably a dog or a wolf, rendered with black glaze and incised lines.

The reclining figure on the front has the pose familiar in banqueting scenes and in hero reliefs,<sup>10</sup> but the ivy wreath and the extended cup are particularly appropriate to the god Dionysos. The suspended basket is common in Dionysiac groups as well as in banqueting scenes. Moreover, the nude figure on the left flank, hurriedly bringing his pitcher of wine, has the characteristic gestures of a satyr, but the tail,

<sup>10</sup> See article on "Hero Cults in the Corinthian Agora," in *Hesperia*, XI, 1942, pp. 128 ff.



if one existed, has disappeared. The "dog" in the opposite panel is the common companion in such scenes, without specific significance.

The poor preservation of the figures makes it difficult to fix a definite date for the altar. Though decorated in the black-figured technique, the subject matter and mode of representation follow the tradition of red-figured pottery at the end of the sixth and in the first quarter of the fifth century. The suspended basket is common on red-figured pottery in the early archaic style,<sup>11</sup> but is rare on black-figured pottery<sup>12</sup> and on later fifth century vases.

The small fragment shown in Plate 110d, left,<sup>13</sup> was picked up by George Kachros, the Guard of the Museum, in the vicinity of the Bema. Though none of the edges is preserved, its resemblance to other fragments of altars leaves little doubt that this is part of a similar dedication. It is made of the same material with a thin layer of fine clay on the surface backed by the coarser variety. The color is a brick-red, but on the surface it is a brownish buff. The figures are in very low relief.

At the right end of the fragment is preserved part of a seated figure, to left, probably female, draped to the ankles in a garment painted dark brown. The outstretched right arm was rendered in purple, and a painted vertical line in front is probably part of a spear. She is seated on an object outlined with a purple border. The other object visible at the left edge seems to be a draped figure stooping forward, but there is not enough left to identify the object with certainty.

A fragment of a third altar (Pl. 110d, center)<sup>14</sup> was discovered by Robert Scranton in the area north of the Archaic Temple. It preserves the total height, 0.135 m., only 2 mm. less than the height of the double altar described above. At the top was a moulding, probably a tongue-and-dart, similar to the moulding on three relief altars from the tile factory.<sup>15</sup> At the base is a raised moulding with a broad toros at the top and a plain band at the bottom.

The fragment preserves a seated male figure to right enveloped in a heavy cloak. His face and feet are rendered in purple, his hair and the edge of his cloak in black. There are three purple dots at the back, like weights suspended from the edge of the garment. The seat is very low, like a cushion. There is nothing to indicate the identity of the figure.

<sup>11</sup> It appears on vases of Euphronios (E. Pfuhl, *Malerei und Zeichnung der Griechen*, III, 130, No. 405), but is particularly common on vases by the Brygos painter; cf. Richter and Hall, *Red-figured Athenian Vases*, pls. 44 and 45, Nos. 44, 46, 50; E. Pfuhl, *op. cit.*, III, 140-141, No. 422. See also Richter and Hall, *op. cit.*, pl. 35, No. 36 (Colmar painter) and pl. 53, No. 53 (Makron); and M. Z. Pease, *Hesperia*, V, 1936, p. 258, Fig. 6 (Nikoxenos painter).

<sup>12</sup> A somewhat similar basket carried in the mouth of a dog appears on a black-figured lekythos by the Gela painter of the early fifth century. C. H. E. Haspels, *Attic Black-Figured Lekythoi*, Pl. 24, 2a.

<sup>13</sup> Inventory No. M.F. 8809.

<sup>14</sup> Inventory No. M.F. 2406.

<sup>15</sup> *Hesperia*, XVI, 1947, pp. 217-218, and plate LII, 1.

Both in the pose of the figure and in the general appearance the fragment resembles a small piece published in 1947 (Pl. 110d, right).<sup>16</sup> The two fragments are not parts of the same altar, however, nor could they have been made in the same mould, since the moulding at the base is different. The seated figures are not identical, but the pose is rather similar, and the black line used to indicate the hem of the garment is applied in the same way. Both pieces seem to date from the early fifth century B. C.

The surprisingly large number of terracotta altars from Corinth discovered in recent years indicates that this had become a favorite type of dedication in the last quarter of the sixth and the first quarter of the fifth century B. C. It may have continued in use into later times, but the best examples were probably made during those fifty years. They fall into two distinct categories. One had a broad moulding at the top and painted panels on three sides; the other had mouldings both at the top and at the bottom and the figures were in low relief and likewise painted. Of the two varieties the relief altars may have come into use later, about the end of the sixth century, whereas the painted variety began some three decades earlier and continued into the fifth century. There can be no reasonable doubt regarding the original home of these altars, which represent a late phase of Corinthian ceramic art, not unworthy of the tradition of Corinthian pottery of earlier times.

OSCAR BRONEER

OLD CORINTH  
GREECE

<sup>16</sup> *Hesperia*, XVI, 1947, p. 220, and plate LIII, 1. This fragment was found in one of the early trial trenches in the Agora.

## KALLIXENOS THE ALKMEONID

AMONG the more than one thousand five hundred ostraka that have been found to date in various parts of Athens, many bear the names of "candidates" for ostracism who are not mentioned in our literary sources.<sup>1</sup> As a rule these new names appear on only a few ostraka so that we may assume that the persons named, though active in the political life of the times, were lesser figures and that for this reason they received only a scattering vote. The silence of our literary sources is thus understandable.

We cannot, however, say the same of the hitherto unknown Kallixenos, son of Aristonymos, of the deme Xypete, whose name appears on no less than 251 ostraka and who thus ranks second only to Themistokles, the statesman whose name appears most frequently on the ostraka discovered to date. All the ostraka with the name of Kallixenos have been found at the Agora Excavations except one, and this a mere fragment which was found at the Kerameikos.<sup>2</sup> It is to be noted, however, that the Agora pieces do not all come from a single deposit, so that one might argue that the few hundred votes which happened to have been cast against Kallixenos at a single ostrakophoria, after having been separated out and counted, were dumped all together in one place. On the contrary, they have been found in many different deposits in various parts of the excavations. The large number of ostraka with this name, found widely scattered over the area around the ancient Agora, indicates at once that we have to do with a man who was very active in the political affairs of the city, and for whose ostracism a concerted campaign must have been conducted.<sup>3</sup> A study of these ostraka has given us other information about him which is set forth in this brief article.

In only a few instances does the name Kallixenos appear alone on an ostrakon (cf. No. 2), excluding of course broken pieces. In one of these cases we have to do with an ostrakon left unfinished by the writer (No. 1). Two other special instances will be discussed below (Nos. 29 and 32). In the great majority of cases the name is accompanied by the patronymic, Aristonymou. Yet although this brief text Καλλίχσενος Ἀριστονώμω appears so many times, each ostrakon has its own character and reflects something of the individuality of its writer. The type and shape of the sherd employed, the forms of the letters, and the mistakes made by the writers show very

<sup>1</sup> See the detailed list in *Hesp.*, Suppl. VIII, pp. 408-412, which includes all those found up to the end of 1946, and the supplementary list of the large number found in 1947, *Hesp.*, XVII, 1948, p. 194. Relatively few were found in 1948 or 1949.

<sup>2</sup> W. Peek, *Kerameikos*, III, p. 86, No. 165.

<sup>3</sup> Whether or not this campaign resulted in his ostracism, it is not possible at present to say.



great diversity in this group of ostraka. At the end of the article we publish a number of examples to illustrate this diversity. Only five ostraka of Kallixenos give his demotic, sometimes in the nominative case, sometimes in the genitive case with the preposition  $\epsilon\kappa$  (e. g. No. 27). That this Kallixenos of Xypete is the same as the son of Aristonymos is made certain by two ostraka <sup>4</sup> which have the full name, Kallixenos Aristonymou Xypetaion.

Chance has preserved for us something more than the mere name of this hitherto unknown statesman: a rough portrait sketch of him. On the ostrakon No. 29 the voter has scratched a head in profile to the right, a head with a wreath and a long pointed beard. This ostrakon is unfortunately damaged at several crucial points so that we do not have the complete picture. Nevertheless, this representation, though incomplete, is most precious to us, drawn as it was by the hand of a contemporary fellow citizen of Kallixenos. To the right of the head the name has been written in three lines,  $\text{Καλλί}|\chi\sigma\epsilon\nu|os$ , without the patronymic, one of the few instances in which the name appears alone. The vacant spaces on the sherd have been filled in with a branch and a fish whose head only is preserved.

Who was this Kallixenos, when did he live, and why were so many votes cast against him? There can be no question about his date. Many ostraka with his name have been found in the same deposits with ostraka of Aristides, Themistokles and Hippokrates, son of Alkmeonides, to mention only a few. It is thus clear that Kallixenos was active in the second decade of the fifth century B. C. A close study of the layers in the Rectangular Rock-Cut Shaft, in which two ostraka of Kallixenos were found, has led Vanderpool <sup>5</sup> to attempt to fix the date even more closely, and he suggests that Kallixenos may have been one of the principal "candidates" for ostracism in 483 B. C. He adds, however, that although this would appear to be a suitable date for the two ostraka from the Shaft, it does not follow that all the Kallixenos ostraka are to be dated to the same year, for it is quite possible that votes may have been cast against him on more than one occasion. It now seems probable, in fact, that the majority of the Kallixenos ostraka date from the ostracism of 482 B. C. <sup>6</sup>

We see then that we are dealing with a very important person of the period of the Persian Wars. The ostrakon No. 30 gives us evidence which enables us to identify the family to which he belonged. Above the two lines which give the name and patronymic of Kallixenos, four letters of a first line are preserved which apparently gave the name of his family or clan. We may restore the full text of this ostrakon as follows:

$[\text{'Αλκ}]μεον[ιδόν | Καλ]λίχσεν[ος | \text{'Αρ}]ιστο[νύμο].$

<sup>4</sup> No. 28 and Agora Inv. P 2758; the latter published in *Hesp.*, XV, 1946, p. 273, No. 9.

<sup>5</sup> *Hesp.*, XV, 1946, p. 273.

<sup>6</sup> Cf. *Hesp.*, Suppl. IV, p. 33.

Kallixenos therefore belonged to the great and well known Alkmeonid family, a family that was deeply involved in the political strife of the age, and one that had many enemies; hence it is not surprising to find an attempt being made to ostracize him.

Another ostrakon that may be cited in this connection is one on which we read Κλαλίσεινος | Κλεστένης (No. 31). It was found in 1947 in the large group discussed in *Hesperia*, XVII, 1948, pp. 193-4. This ostrakon is noticed briefly there and interpreted as referring to an otherwise unknown son of Kleisthenes the Legislator. While this is of course possible, and is indeed on the face of it the obvious interpretation, it does seem a little strange that in a deposit containing about five hundred ostraka, among which 40% of the identifiable pieces were against Kallixenos Aristonymou,<sup>7</sup> there should be one against another Kallixenos, a son of Kleisthenes. May we not suppose that this lone ballot was also intended for Kallixenos Aristonymou, and that the voter meant it in the sense "Kallixenos, that relative of Kleisthenes," Kleisthenes being the most prominent member of the family?<sup>8</sup>

If further confirmation of Kallixenos' connection with the Alkmeonid family were needed, we might recall that the name Aristonymos was borne by the grandfather of Agariste of Sicyon who had married into the Alkmeonid family in an earlier generation.<sup>9</sup> The use of the name of a Sicyonian forebear in the Alkmeonid family would be quite normal and is indeed paralleled in the case of Kleisthenes, the Legislator. If we seek to place Kallixenos more precisely in the Alkmeonid family tree, we are on less solid ground. We may, however, perhaps suggest that his father Aristonymos was a younger brother of Kleisthenes and that he had established himself in Xypete some time before the reforms of 508/7 B. C. and thus automatically took a demotic different from the other members of the family who had remained at the old homestead in Alopeke.<sup>10</sup>

The ostrakon No. 32 is also of considerable interest. It consists of two lines of text broken away at the left, in the first of which we read—ίχσεινος followed by a blank space. In the second line, just at the break, part of an omicron is preserved.<sup>11</sup> This is followed by an epsilon which has been corrected to delta (or vice-versa), and

<sup>7</sup> Another 40% were against Themistokles, 10% against Hippokrates Alkmeonidou, and 10% scattering; Cf. *Hesp.*, *loc. cit.*

<sup>8</sup> It might also be merely a case of confusion or error on the part of the writer; note that he made a false start on the other side of the sherd, and that he spells badly. We might even suppose that the second name was not a patronymic at all, but merely another attempt (the fourth!) to write Kallixenos: compare the confused spellings on some of the ostraka published below, particularly the Καλίσθενος of No. 23 and the Κλισένης of No. 25.

<sup>9</sup> *Herodotos*, VI, 126; cf. VI, 131. We thank A. E. Raubitschek for this and other suggestions.

<sup>10</sup> Leobotes Alkmeonos Agrylethen (*P.A.*, 9071) appears to be a similar case. It is possible too that Aristonymos and Kallixenos were connected with the Alkmeonids only in the female line.

<sup>11</sup> It might also possibly be a theta of the type with a central dot, which is common enough on ostraka of this period.



this by the letters *οτες*. This line cannot be restored as a demotic; nor does it lend itself readily to interpretation as a patronymic in the nominative case such as we sometimes find on ostraka of the period. Although there are several possibilities for the first line,<sup>12</sup> the most likely restoration by far is [Καλλ]ίχσενος, the only name with this ending that has so far appeared on ostraka, and the sherd may be interpreted as an ostrakon of Kallixenos Aristonymou, one of the few on which the name is not accompanied by patronymic or demotic. The letters in the second line must therefore belong to some word which would characterize Kallixenos in a way which would make the patronymic or demotic superfluous, probably a derogatory word.<sup>13</sup> We would suggest [πρ]οδότες, or, to fill the available space more satisfactorily, [ho πρ]οδότες. This restoration also fits in very well with the usual accusations of *ἐναγείς* and *ἄτιμοι* which were levelled against the Alkmeonidai.<sup>14</sup> That this very word *προδοτής* was current in the political parlance of the day, we know from the orator Lykourgos (*In Leocr.*, 117), where there is mention of a stele on which were written the names of *προδότηι* and *ἀλειτήριοι*.

In this connection we may also mention a fragment of an ostrakon from the large 1947 group (No. 33) on which we read [— —]ς ἄτιμ[ος]. The restoration ἄτιμ[ος] seems virtually certain.<sup>15</sup> Before it we have a trace, but only a trace, of the last letter of the preceding word, probably the name of the person against whom the ballot was cast. Since about 40% of the identifiable ostraka from this deposit were against Kallixenos it is quite within the bounds of possibility that the missing name here was his. In this case we might restore the text [Καλλίχσενο]ς ἄτιμ[ος].

Finally we must discuss a most unusual piece which is probably to be interpreted as an ostrakon of Kallixenos (No. 34). It is part of a handle from a semi-glazed or black glazed oinochoe. The outer face is concave with edges glazed and central part reserved. An inscription is carefully painted in large letters along the central part of the handle in the same black glaze as is used for the edges; it reads from top to bottom: Καλλίχσ[ενος — —].

This is indeed a most unusual piece, and we must confess that had it not been found in a deposit with other ostraka, it would never have been recognized as such. It comes, however, from a deposit which contained some 500 ostraka, among which about forty per cent of the identifiable pieces bore the name of Kallixenos, son of

<sup>12</sup> See Bechtel, *Hist. Personennamen*, pp. 341-2.

<sup>13</sup> It might of course refer to some title or office held by Kallixenos, as in the case of the ostrakon against Eucharides the thesmothete, *Ath. Mitt.*, XL, 1915, p. 17, No. 44 (= *I.G.*, I<sup>2</sup>, 911, 5). No suitable restoration in this sense suggests itself, however. In this connection we might also mention the Menon ostrakon, W. Peek, *Kerameikos* III, pp. 71-2, No. 121; could this be restored Μένον ἐκκ προ[δοτ]ῶ[ν] on the parallel of the piece under discussion here?

<sup>14</sup> Cf. Carcopino, *L'ostracisme athénien*<sup>2</sup>, p. 31.

<sup>15</sup> It is of course also possible that we have here some rare name such as Megatimos.



Aristonymos. We need scarcely hesitate, therefore, to restore the name Kallixenos and to assume that this handle was used as an ostrakon.<sup>16</sup>

On the other hand, however, it is quite impossible to suppose that this handle was originally inscribed with the intention of using it as an ostrakon. Painted ostraka do exist, but the three that are known, one each of Thucydides Melesiou, Kallias Didymiou and Hyperbolos Antiphaneus,<sup>17</sup> are done in a matt paint or ink of some sort which has not been fired, and it is clear that the writing was done on the sherd, not on the complete vase. This is not the case with our handle, however. Here the writing was done in the same black glaze as was used for the decorative bands at the sides of the handle, and it has been *fired*. The letters are large and neat and evenly spaced, and were evidently written with an eye to their decorative effect. Clearly then the inscription was originally written on the complete vase.

Since this is the case, it will in all probability have said one of four things: "Kallixenos made (or painted) me," "I belong to Kallixenos," "Kallixenos dedicated me," or "Kallixenos is fair." We cannot perhaps choose with certainty between these various possibilities. If we accept the first, the name will not be that of our Kallixenos, who as a member of one of the great aristocratic families of his day will hardly have been in the pottery business, but that of an otherwise unknown potter or painter named Kallixenos. Owners' names painted on the vase before firing are rare, though not unknown. A dedication is not impossible, but painted ones are far rarer than incised ones, and furthermore the words "Kallixenos anetheken" would surely have filled the available space on the handle and there would have been no room for mention of the deity which would have had to be painted on the body. There remains the fourth possibility, and there seems a good chance that the inscription is to be restored Καλλίχσ[ενος καλός].

The vase on which it was painted was an oinochoe or olpe, either semi-glazed or black glazed. There are several types common in the middle and second half of the sixth century which have high arching handles with a concave outer face.<sup>18</sup> None of the handles on these vases is inscribed,<sup>19</sup> to be sure, but the idea of using an inscription

<sup>16</sup> It must be confessed that the deposit also contained thousands of sherds which were not ostraka, some thirty boxes full, and that one of these bore an ordinary graffito, an owner's name, another was a normal dipinto from the neck of an unglazed amphora, and a third was a fragment from an inscribed Panathenaic amphora. This fact, however, does not seriously weaken the argument.

<sup>17</sup> Thucydides: *Ath. Mitt.*, LI, 1926, pp. 128 f., fig. 1. Kallias: cf. *Hesp.* Suppl. VIII, pp. 409-10. Hyperbolos: *Hesp.*, VIII, 1939, p. 246, fig. 47. It will be noted that all date from the second half of the fifth century.

<sup>18</sup> Cf. a small black glazed example, *Hesp.*, VII, 1938, p. 381, No. 13; for the semi-glazed variety, *ibid.*, pp. 386 ff., No. 18.

<sup>19</sup> Inscriptions are not often found on the handles of vases. Artists' signatures, however, sometimes occur written in small letters as for example on cups of Brygos and Hieron. The only love

as one of the main elements of the decoration of a vase is not foreign to the period. We may cite the Little Master cups on which inscriptions are regularly so used, and also the Kriton and Lysias oinochoai<sup>20</sup> where the sole decoration consists of a narrow reserved panel on the body containing the signature. For parallels more nearly contemporary with what must be the date of our vase if we accept the proposed restoration, i. e. the last quarter of the sixth century, we may cite the Agora plate with a central medallion consisting of two inscriptions, one the signature of the potter Salax, the other praising the fair Eumares.<sup>21</sup> Mention might also be made of the fragmentary red-figured cup from the Agora with the love-name Agasikrates painted in large red letters around the rim inside.<sup>22</sup>

Thus, without absolutely excluding other possibilities, there would seem to be a fair chance that the inscription originally painted on the pot read Καλλίχσ[ενος καλός]. By what strange trick of fortune the handle of this vase which was made in honor of the fair Kallixenos in his youth was in later years turned into a ballot aimed at sending him into exile is a subject with which we may allow our imaginations to play.

And so the figure of Kallixenos, son of Aristonymos, of Xypete, a member of the great Alkmeonid family and a person of some consequence in Athens at the time of the Persian Wars, has, almost entirely through the agency of the ostraka, been brought back if not into the full light at least into the half-light of history.

## CATALOGUE

We publish below a representative selection of ostraka of Kallixenos, son of Aristonymos, of Xypete, including those mentioned above. The drawings were made by Mrs. Clayton R. Whipple, the photographs by Miss M. Alison Frantz, to both of whom we extend our thanks. For bibliography of ostraka of Kallixenos published through 1946, see *Hesp.*, Suppl. VIII, p. 410. Add *Hesp.* XVII, 1948, pp. 185-6 and 193-4.

- |  |   |
|--|---|
| 1. Inv. No. P 17,776. Max. dim. 0.10 m. Fig 1.<br>Large 1947 group (cf. <i>Hesp.</i> , XVII, 1948, pp. 193-4). | From the wall of a porous water jar.<br>Incised inside: Καλλχσ. The name was never completed. |
|--|---|

name that we know of on a handle is on one of the head vases by Charinos (*J.H.S.*, XLIX, 1929, p. 43). None of these, however, is really a proper parallel for our piece.

<sup>20</sup> *C.V.A.*, Goluchow, Pl. 16, 2; Hoppin, *BF.*, pp. 159 and 167.

<sup>21</sup> *Hesp.*, XV, 1946, pp. 276 f., No. 17.

<sup>22</sup> Inv. No. P 7901; associated with the manner of Euphronios by Beazley, *A.R.V.* p. 19, 7, and mentioned in his *Some Attic Vases in the Cyprus Museum*, pp. 29-30. Other examples (these kindly given us by Professor Beazley): Louvre, CA 1943, mug with ΕΠΙΔΡΟΜΟΣ ΚΑΛΟΣ as sole decoration in large letters bounded by relief lines, the space between the relief lines being scraped out (mentioned *A.R.V.*, p. 922, no. 15); the olpe (fragment) of Priapos, *B.S.A.*, XXIX, 1927-8, p. 204, top. Jacobsthal's article "Zur Kunstgeschichte der griechischen Inschriften" in *Xáριτες Friedrich Leo zum sechzigsten Geburtstag dargebracht*, deals with the use of inscriptions as decoration: the section on vases (pp. 456-8) could now be greatly expanded as the above references indicate.

Since this sherd was found with a large group of ostraka, many of which bear the name of Kallixenos, there can be no doubt that it too is an ostrakon. As it is incomplete, we may question whether it was actually used for voting or not. We should remember, however, that it was found with a large group of ostraka evidently discarded after the balloting, and therefore it seems possible that it was used as a ballot in spite of its incompleteness. It may equally well, however, have been rejected and discarded near by, and subsequently have been swept up with the rest.



Fig. 1. No. 1.

2. Inv. No. P 17,729. Max. dim. 0.108 m.  
Fig. 2.



Fig. 2. No. 2.

Large 1947 group.

From the wall of a large unglazed pot; incised outside. The ostrakon is complete except

for minor chips. The name Kallixenos stands alone: Καλίχσενος. Note the retrograde sigmas and the single lambda.

3. Inv. No. P 17,672. Max. dim. 0.074 m.  
Plate 111.

Large 1947 group.

Wall fragment from a semi-glazed krater, as for example *Hesp.*, XV, 1946, p. 328, Nos. 304-308. The name and the patronymic are incised through the glaze on the inside of the sherd: Καλλίχσενος | Ἀριστονύμο

4. Inv. No. P 5315. Diameter 0.07 m. Plate 111.

Found in a modern wall near the center of the Agora (Section Ξ).

Foot of a black-glazed kylix, approximately as *Hesp.* XV, 1946, pp. 316-7, No. 232.

Incised through the glaze around the top of the foot:

Καλλίχσενος Ἀριστονύμο

5. Inv. No. P 17,642 + P 17,932. Max. dim. (practically the diameter) 0.071 m. Plate 111.

Large 1947 group.

Two joining fragments preserve the complete ostrakon, half the base of a black-glazed kylix similar in shape to the last item.

Incised through the black glaze on the under side of the foot: Καλλίχσενος | Ἀριστονύμο

6. Inv. No. P 17,649. Max dim. 0.097 m.  
Fig. 3.

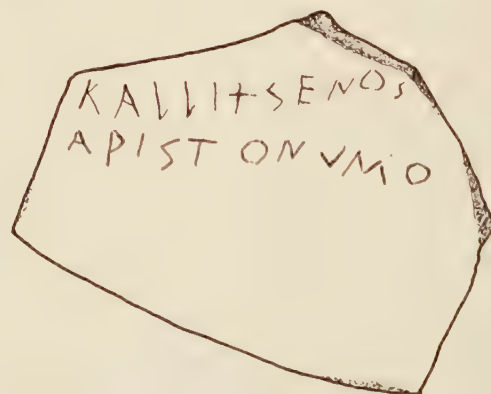


Fig. 3. No. 6.



Large 1947 group.

From the wall of a large unglazed pot.

Incised outside: Καλλίχσενος | Ἀριστονύμο

7. Inv. No. P 15,618. Max. dim. 0.08 m. Plate 111.

Large 1939 group (cf. *Hesp.* Suppl. VIII, p. 395).

Early black figured sherd from a large closed pot. On the outside, part of an animal frieze: head of a panther, wing and tail of a siren.

Incised inside: Καλλίχσ[ενος] | Ἀριστο[νύμο]

8. Inv. No. P 17,770. Max. dim. 0.074 m. Fig. 4.

Large 1947 group.

From the wall of a large unglazed pot.

Incised outside: Καλλίχσενος | Ἀριστονύμο

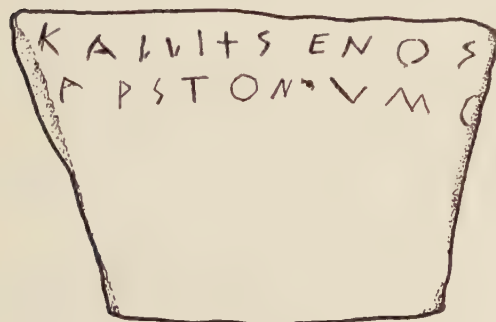


Fig. 4. No. 8.

9. Inv. No. P 9965. Max. dim. 0.11 m. Fig. 5.

One of the group of forty ostraka found in the road fifteen meters due south of the Tholos, mentioned in *Hesp.* Suppl. IV, p. 33.

The stopper for the cleaning hole of a terracotta water pipe similar to that discussed and illustrated in *Hesperia* IV, 1935, pp. 334-6, figs. 22-23; cf. also Suppl. IV, pp. 23-4, figs. 17-18. Incised on the top, around the outer edge of the stopper: Καλλίχσενος Ἀριστονύμο. Single letters are often doubled, but this is the only instance of a double *chi* that has appeared on ostraka thus far.

10. Inv. No. P 15,597. Max. dim. 0.117 m. Fig. 6.

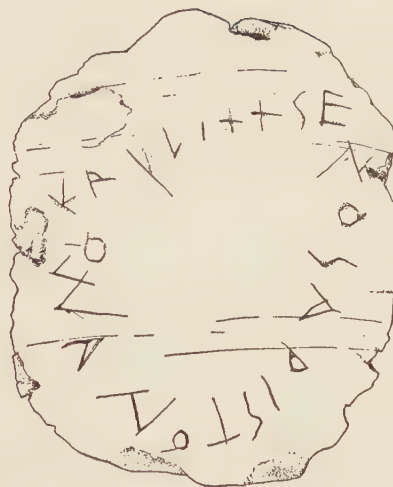


Fig. 5. No. 9.

Large 1939 group.

From the wall of a large unglazed pot.

Incised outside: Καλλίχσενος | Ἀριστόνυμος

Note the double rho. The patronymic in the nominative case occurs on at least eight Kallixenos ostraka.

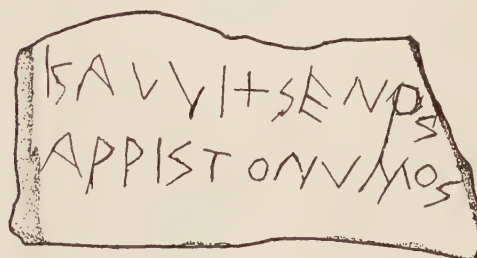


Fig. 6. No. 10.

11. Inv. No. P 17,637. Max. dim. 0.105 m. Plate 111.

Large 1947 group.

From the wall of a semi-glazed krater.

Incised inside: Καλλίχσενος | Ἀριστονύμο

Note the double sigma.

12. Inv. No. P 15,473. Max. dim. 0.115 m. Fig. 7.

Large 1939 group.

From the wall of a large unglazed pot.

Incised on the outside: Καλίχσενος | Ἀριστονίμο  
Note the single instead of the double lambda.

The spelling -νίμο at the end of the patronymic occurs on 9 ostraka as against 103 with the regular -νίμο. The substitution of *iota* for *upsilon* has hitherto been observed in a very few instances, and usually in certain specific words, in inscriptions on vases and stone.<sup>23</sup> From the figures given above, however, we see that the phenomenon was not as uncommon as has been thought and that it occurs once in about 12 times in the word Ἀριστονίμο. We find the same phenomenon again in the word Χονπεταίων (see below on No. 26) where chance has preserved for us 3 instances of the correct *upsilon* and 2 of the *iota*. Compare also the *ίος* for *νίος* discussed below under No. 17. Must we not, therefore, conclude from the present cases, in which there is no possibility of assimilation, that in the early fifth century B.C. the sound of *upsilon* was sufficiently close to the sound of *iota* to cause confusion to some persons? Meisterhans' view (p. 28, 1) that from early times the sound of *upsilon* was already like German *ü* rather than like German *u* is thus reinforced.



Fig. 7. No. 12.

13. Inv. No. P 17,598. Max. dim. 0.12 m.  
Fig. 8.

Large 1947 group.

From the wall of a large unglazed pot.

Incised outside: [Καλίχσε]νος Ἀριστονίμου

Among the Kallixenos ostraka there are at least two instances in which the genitive ends in -ον instead of -ο; see next item.



Fig. 8. No. 13.

14. Inv. No. P 17,919. Max. dim. 0.125 m.  
Plate 112.

Large 1947 group.

From rim and upper wall of a semi-glazed krater.

Incised inside, twice over: Καλίχσενος | Ἀριστονίμου and Καλίχσενος | Ἀριστονίμο.

In the first instance the genitive ending in -μν was perhaps intended for -μου: compare the previous item.

15. Inv. No. P 15,496. Max. dim. 0.072 m.  
Fig. 9.

Large 1939 group.

From the wall of a large unglazed pot.

Incised outside: [Καλί]χσενος : ho | [Ἀριστο]νίμο

This is the only certain instance of the use of the article with the patronymic among the Kal-

<sup>23</sup> Cf. P. Kretschmer, *Die griechischen Vaseninschriften*, pp. 119-121; Meisterhans, *Grammatik der attischen Inschriften*<sup>3</sup>, pp. 28-30. The love-name Euryptolemos is spelled this way once; Beazley, *A.R.V.*, p. 87, No. 4.

lixenos ostraka, although it occurs not infrequently elsewhere.

The spurious diphthong *ov* of the genitive is normally represented simply by *o*, and it is so written on at least 93 Kallixenos ostraka including most of those published here. In at least six (or possibly seven) instances, however, it is represented by  $\Omega$ , a sign which on the ostraka of this period seems always to stand for the spurious diphthong *ov* and never for *omega*. In two instances the diphthong is written out in full, *ov*; see No. 13 above, and cf. No. 14.<sup>24</sup>



Fig. 9. No. 15.

16. Inv. No. P 17,921. Max. dim. 0.095 m. Fig. 10.

Large 1947 group.

From rim and upper wall of an unglazed krater.

Incised inside: Καλλισένοι | Ἀριστόνιμο

Originally written with a single *lambda*, a second was later crowded in. The *chi* has been omitted before the *sigma* in Kallixenos. This is one of three Kallixenos ostraka with the name in the dative case.



Fig. 10. No. 16.

17. Inv. No. P 17,639. Max. dim. 0.10 m. Plate 112.

Large 1947 group.

From the rim and upper wall of a semi-glazed krater.

Incised inside, following the edge of the sherd: Καλλίσκενος ἰός Ἀριστόνυμος. The *iota* of Kallixenos seems originally to have been omitted; the *sigma* was then changed to *iota* by drawing a deep straight line and a new *sigma* was crowded in. Notice *σκ* instead of *χσ* in the third syllable.

ἰός seems certainly to be intended for *νίος*, and we should probably assume that the initial *upsilon* has been inadvertently omitted, like the *sigma* of Aristonymos. The forms *νίος* and *ἰός* both occur in archaic Attic inscriptions,<sup>25</sup> however, and, although there is no other example of it, we perhaps cannot exclude the possibility that *ἰός* has been written here for *ἰός*, especially in view of the fairly frequent substitution of *iota* for *upsilon* observed among these ostraka; see above on No. 12, compare also the next item.

<sup>24</sup> Among the Themistokles ostraka at the Agora, there are 64 instances of Νεοκλέος, 5 of Νεοκλέως and 3 of Νεοκλέους. For the use of the sign  $\Omega$  in archaic Attic vase inscriptions see J. D. Beazley's remarks in *A.J.A.*, LII, 1948, p. 338; add Berlin F 4017 with the inscription Αἰαντίδω: εἰμί, A. Furtwängler, *Beschreibung der Vasensammlung im Antiquarium*, p. 1018. For its use in ostraka of the mid-fifth century cf. W. Peek, *Kerameikos*, III, *Inschriften, Ostraka, Fluchtafeln*, pp. 58-9, 64 and 84-85. Two isolated occurrences in stone inscriptions are cited by Meisterhans, *Grammatik der attischen Inschriften*<sup>3</sup>, p. 4, note 17 and p. 26, note 135. See also Raubitschek, *Dedications from the Athenian Akropolis*, p. 113.

<sup>25</sup> Cf. Meisterhans<sup>3</sup>, pp. 59-60; Liddell and Scott, *Greek-English Lexicon*, s. v.



The *sigma* of *íos* is written backwards; it has three bars, not four as might appear from the photograph, the upper "bar" being caused by the glaze having flaked at this point.

18. Inv. No. P 17,772. Max. dim. 0.135 m. Fig. 11.

Large 1947 group.

From the rim and upper wall of a semi-glazed krater.

Incised on the flat, reserved upper face of the rim:

Καλλ[ίχ]σενος | Ἀρι[στ]ονύμο [ιο].

After the patronymic are two and possibly three letters, written with a somewhat lighter stroke. The first two, clearly *IO*, have subsequently been erased by scraping the surface of the sherd. The third very lightly drawn and close to the edge, consists of a single stroke. It may be a complete *iota*, some other letter left incomplete, or possibly no letter at all but merely a scratch. In view of the occurrence of the word *íos* in the ostrakon published above, it seems not unlikely that an attempt was made here to write the same word, but that it was left unfinished and then partially erased.

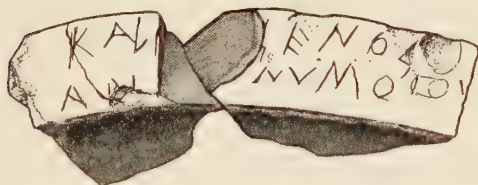


Fig. 11. No. 18.

19. Inv. No. P 9967. Max. dim. 0.09 m. Fig. 12.

One of the group of forty ostraka found in the road fifteen meters due south of the Tholos, mentioned in *Hesp.*, Suppl. IV, p. 33.

From the wall of a large unglazed pot.

Incised outside, retrograde: Καλίχεν | Μρισονμ  
An extremely illiterate attempt.

20. Inv. No. P 17,693. Max. dim. 0.072 m. Fig. 13.



Fig. 12. No. 19.

Large 1947 group.

From the wall of a terracotta water pipe; cf. No. 9 above. The name is incised on the inside of the fragment, the patronymic on the outside: Καλίχσε|νο|ς || Ἀριστο|νννμ

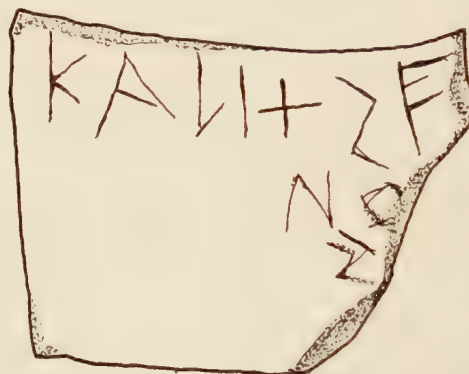


Fig. 13. No. 20.

21. Inv. No. P 15,797. Max. dim. 0.058 m.  
Fig. 14.

Large 1939 group.

From the wall of a semi-glazed krater.

Incised outside: Καλίσσε[νος] | Ἀριτνυ[ο]



Fig. 14. No. 21.

22. Inv. No. P 15,472. Max. dim. 0.108 m.  
Fig. 15.

Large 1939 group.

From the wall of a large unglazed pot.

Incised outside: Καλίσχενος | Ἀριστονύμο

Notice σχ for χσ, a phenomenon which occurs six times among the Kallixenos ostraka, cf. No. 17 above.

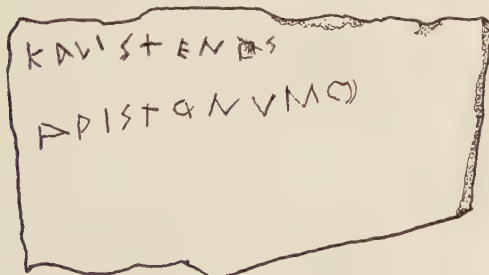


Fig. 15. No. 22.

23. Inv. No. P 10,614. Max. dim. 0.13 m.  
Fig. 16.

Hellenistic fill near the Tholos.

From wall of semi-glazed krater.

Incised outside: Καλίσθενος | Ἀριστόνυμο

Compare the next item.

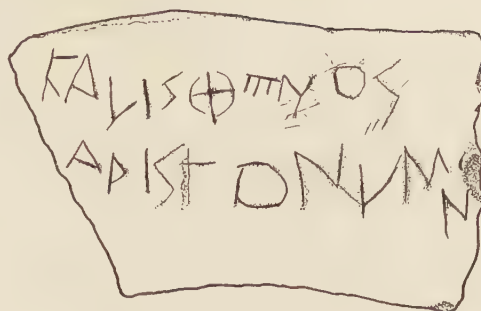


Fig. 16. No. 23.

24. Inv. No. P 17,912. Max. dim. 0.08 m.  
Fig. 17.

Large 1947 group.

About one quarter of the stopper for the cleaning hole of a terracotta water pipe; cf. above, No. 9.

Incised outside: Ἀριστονύμο | Καλλισθένης

This ostrakon is mentioned in *Hesperia*, XVII, 1948, pp. 193-4, where it is read Kalisthenes and the suggestion is made that it refers to a brother of Kallixenos. It seems more probable, however, that it refers to Kallixenos himself, and that the name has merely been misspelled: compare the previous item where we read Kalisthenos, and consider also the various other instances of misspelling among the ostraka published here.



Fig. 17. No. 24.

25. Inv. No. P 17,688. Max. dim. 0.088 m.  
Fig. 18.

Large 1947 group.

From the handle of an unglazed amphora.

Incised down the outer face: Κλισενης 'Αρισ-  
τυ[μο]

This ostrakon is mentioned in *Hesperia*, XVII, 1948, pp. 193-4 and interpreted as either Kleisthenes or Kallisthenes, son of Aristonymos. It seems more probable, however, that this piece too is nothing but a badly misspelled ostrakon of Kallixenos Aristonymou.



Fig. 18. No. 25.



Fig. 19. No. 26.

26. Inv. No. P 15,600. Max. dim. 0.073 m.  
Fig. 19.

Large 1939 group.

From the wall of a large pithos.

Incised outside and (the last three letters)  
inside:

Καλλίχ|σενον | Χσιφετ|αόν

Mentioned *Hesp.* XV, 1946, p. 273.

This is the only instance of the use of the accusative case among the Kallixenos ostraka,

although it is found elsewhere occasionally. The demotic is spelled with an *iota* in the first syllable; compare one of the ostraka of Acharnion Xypetaion, *Hesp.* Suppl. VIII, p. 395, and see above on No. 12. The *phi* of the demotic has been roughened to *phi* as in both Acharnion ostraka, *ibid.* An *alpha* should have been added to the end of the demotic to make it agree with the accusative of the name.

27. Inv. No. P 15,493. Max. dim. 0.098 m.  
Fig. 20.

Large 1939 group.

From the wall of a large pot with dull black glaze outside and thin glaze wash inside.

Incised outside, around the edge of the sherd:

[Κ]αλλίχσεν[ο]ς ἐχς Χουπεταόνον

Mentioned *Hesp.* XV, 1946, p. 273.

28. Inv. No. P 16,761. Max. dim. 0.072 m.  
Plate 112.



Hellenistic cistern on west slope of Areopagus.

From the wall of a red-figured column krater. Inside, dull streaky black glaze. Outside, the left edge of the figured panel, with vertical border of ivy leaves, black, between black bands. Within the panel, part of a raised right arm, and falling across it, a broad fillet done in added red. No relief contour.

Incised inside: Καλίχ[σενος] | 'Αριστ[ονύμο] | Χστ[υπ[εταίον]



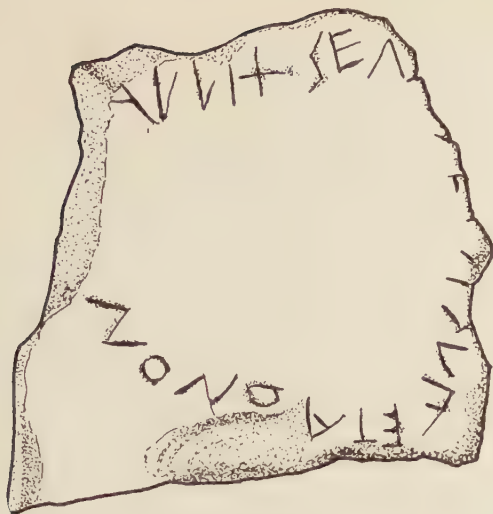


Fig. 20. No. 27.

This ostrakon has been mentioned in *Hesperia* X, 1941, p. 3, and XV, 1946, pp. 265-6, note 2.

29. Inv. No. P 7103. Max. dim. 0.094 m. Fig. 21 and Plate 112.

Hellenistic deposit near temple of Hephaistos.

From the rim and body of a small semi-glazed krater; mended from three pieces; several fragments from the left and central parts of the original ostrakon are missing.

Mentioned *Hesp.*, XV, 1946, p. 273, note 16.

For description and reading see above, p. 377.

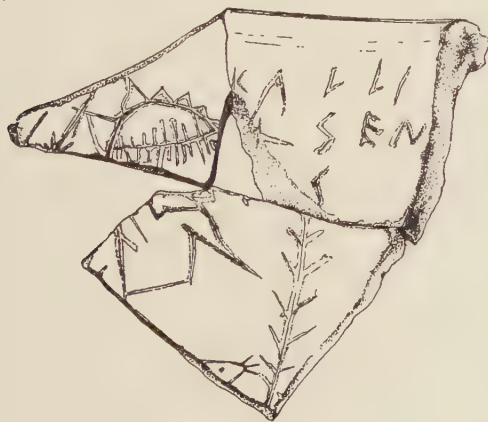


Fig. 21. No. 29.

30. Inv. No. 15,799. Max. dim. 0.089 m. Fig. 22.

Large 1939 group.

From the wall of a large unglazed pot.

Incised outside: [Ἀλκ]μεον[ιδόν | Καλ]λίχσε-  
ν[ος | Ἀρ]ιστο[νύμο]

For a discussion of this piece see above pp. 377-378.



Fig. 22. No. 30.

31. Inv. No. P 17,674. Max. dim. 0.09 m. Fig. 23.

Large 1947 group.

From the mouth and neck of a round-mouthed, porous water jar. Inscribed inside and outside. On the inside a false start, *Κλασε* corrected to *Κλαλι*, then abandoned. On the outside: *Καλίσεινος | Κλεστενος*

Mentioned *Hesp.*, XVII, 1948, pp. 193-4.

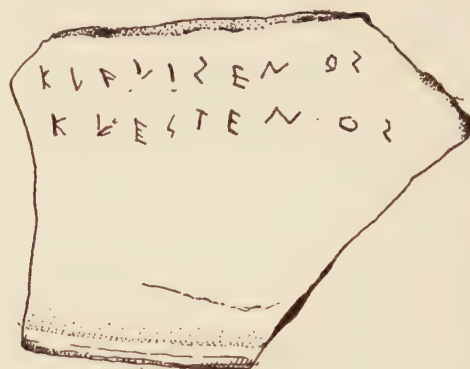
For a discussion of this ostrakon see above p. 378.

32. Inv. No. P 3786. Max. dim. 0.103 m. Fig. 24.

Mixed ancient fill in the road south of the Tholos.



INSIDE



OUTSIDE

Fig. 23. No. 31.

From the rim and upper wall of a semi-glazed krater.

Incised outside: [Καλλ]ίστενος[ho πρ]οδότες

For a discussion of this ostrakon, see above pp. 378-379.



Fig. 24. No. 32.

33. Inv. No. P 17,615. Max. dim. 0.053 m. Fig. 25.

Large 1947 group.

Part of lower wall, ring foot and bottom of a black-glazed skyphos of Attic type.

Incised on bottom: [- - -] ἄτιμ[ος]

For a discussion of this ostrakon, see above p. 379.

34. Inv. No. P 17,960. Width of handle, 0.028 m. Plate 112.

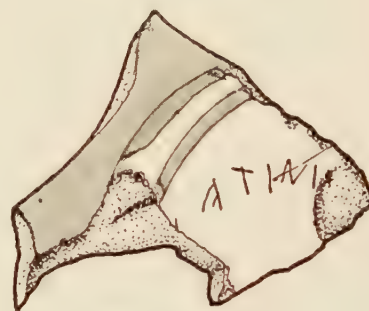


Fig. 25. No. 33.

Large 1947 group.

Two non-joining fragments from the handle of a semi-glazed or black-glazed oinochoe. Outer face concave with edges glazed and central part reserved; glaze also on inside of mouth. An inscription is carefully painted in large letters along the central part of the handle in the same black glaze as is used for the edges; it reads from top to bottom: Καλλίστ[ενος - -]. Most of the first lambda is missing, but the tip of the right hand stroke is preserved.

For a discussion of this piece, see above pp. 379-381.

GEORGE A. STAMIRES  
EUGENE VANDERPOOL

NOTE: This article was written while Mr. Stamires was a member of the Institute for Advanced Study at Princeton and Mr. Vanderpool was holding a research grant under the Fulbright Act at the American School of Classical Studies at Athens.

## INSCRIPTIONS FROM ATTICA

### ADDENDUM

On pages 25-26 of this volume of *Hesperia* we published a dedication to Pythian Apollo made by a certain Xenophon whom we hesitated to identify with the Historian. Having reconsidered the matter, we now feel that there are some grounds for believing that this dedication was perhaps made by Xenophon the Historian himself.

In support of this view we would cite the passage in *Anabasis* V, iii, 4-5, where Xenophon tells how the ten thousand divided the money received from the sale of the booty. The tithe was set apart for two divinities, Apollo and Ephesian Artemis, and distributed among the generals for safe keeping. "As for Xenophon, he caused a votive offering to be made out of Apollo's share of his portion and dedicated it in the treasury of the Athenians at Delphi, inscribing upon it his own name and that of Proxenus, who was killed with Clearchus; for Proxenus was his friend" (translation of O. J. Todd in the Loeb Classical Library).

As Xenophon had not yet been exiled from Athens, is it not possible, and even likely, that at the same time he caused a private dedication to be set up to the same god in the sanctuary near his ancestral home? We feel that the letter forms of the inscription would suit a date at the very beginning of the fourth century B.C.

MARKELLOS TH. MITSOS  
EUGENE VANDERPOOL

ATHENS, GREECE







a. Stoa of Attalos from the North, Before the Removal of Loose Blocks (1933)

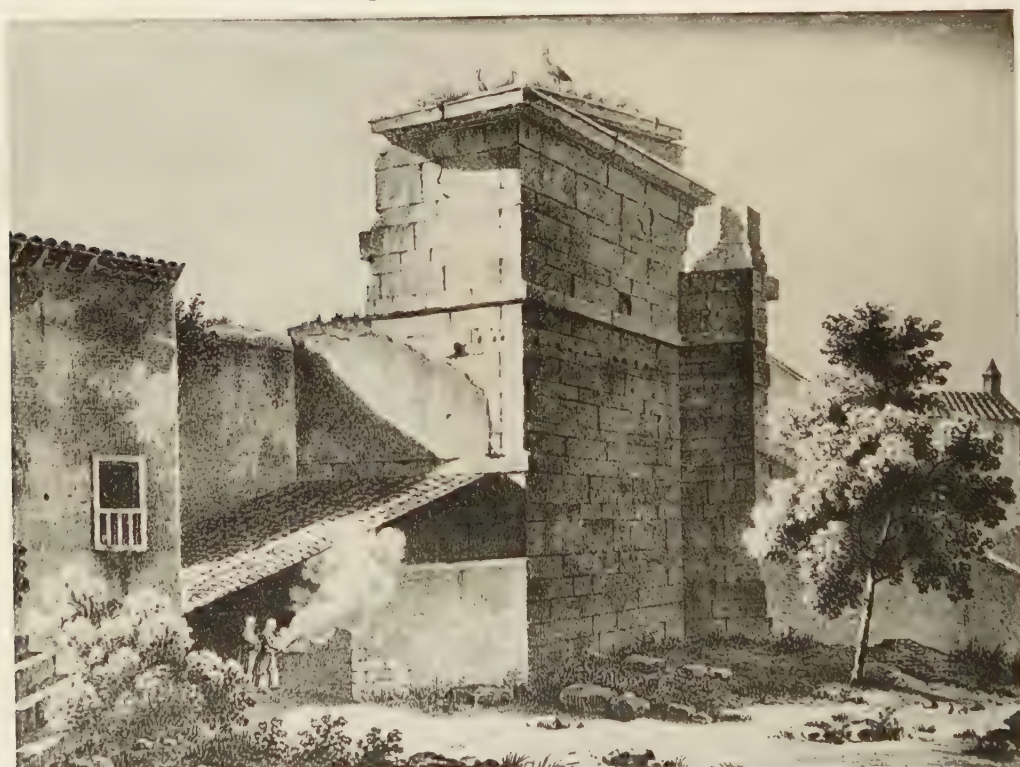


b. Stoa of Attalos from the Southwest, Earth Filling Removed to Floor Level of Pre-Stoa Square Building (July, 1949). Loose lying marbles on right are a remnant of the "Valerian Wall".





a. Stoa of Attalos, Middle Tower of "Valerian Wall" from the Northwest.  
Note piers for interior columns of Stoa



b. Stoa of Attalos, North End, from the Northeast  
(Edward Dodwell, *Views and Descriptions*, London, 1834, Plate 71)

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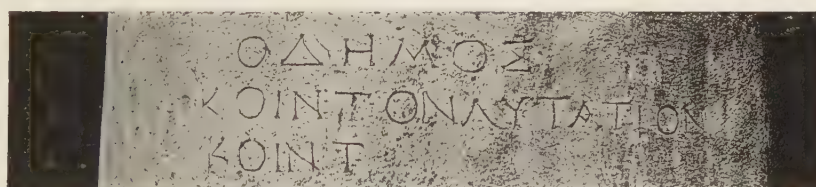




a. Column Drums of Quintus Lutatius Monument from the East (1949)



b. Graffito on Orthostate, Stoa of Attalos, South End



c. Inscription on Quintus Lutatius Monument (I 3948)

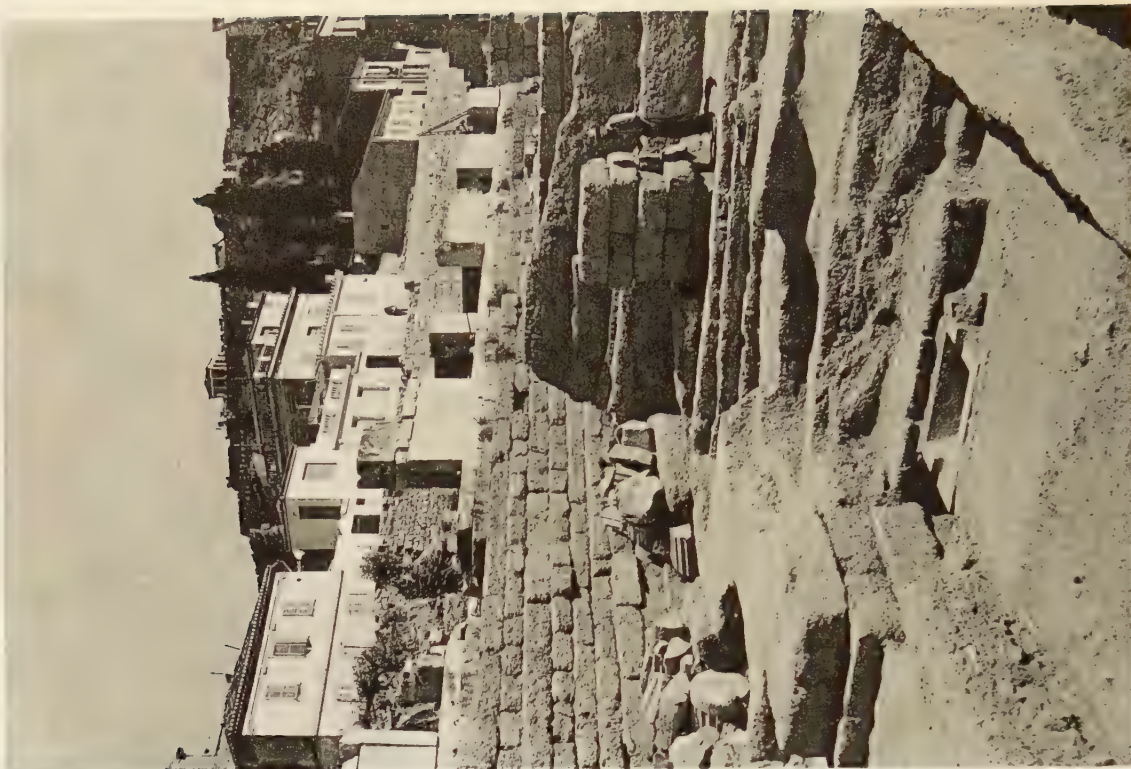


d. Late Helladic III Vases Found to East of Stoa of Attalos (P 20313, 20311, 20312)





a. Stoa of Attalos, View from the Southeast; Earth Filling of Stoa and of Pre-Stoa Building Removed (August, 1949)



b. Stoa of Attalos, View from the Northwest. Note water basin set in floor below floor of pre-Stoa square building





a. Stoa of Attalos, Area to East, View from the South (July, 1949)  
Modern retaining wall at lower right



b. Column Bases in Building to the East of Stoa of Attalos (July, 1949)

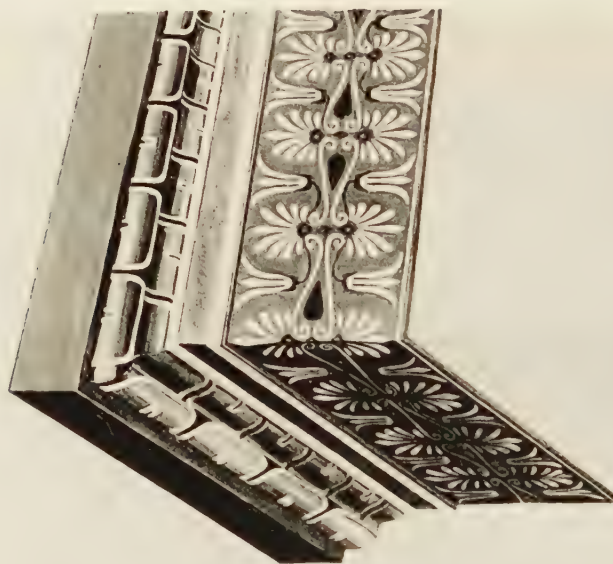




b. Anta Capital from Stoa Poikile  
(Topmost moulding left unfinished in plaster)



c. Wall Block from Stoa Poikile  
(Note spike in lower right corner)



a. Anta Capital from Stoa Poikile, Section and Perspective View



a. Household Pot, Burial Urn and Stone Cover from Child's Burial (P 20087, 20088)



b. Vases from Child's Burial (P 20079-20086)



c. Child's Burial of Late Geometric Period at Northwest Foot of Areopagus  
(The pit in lower right held the "Burial of the Terracotta Boots")

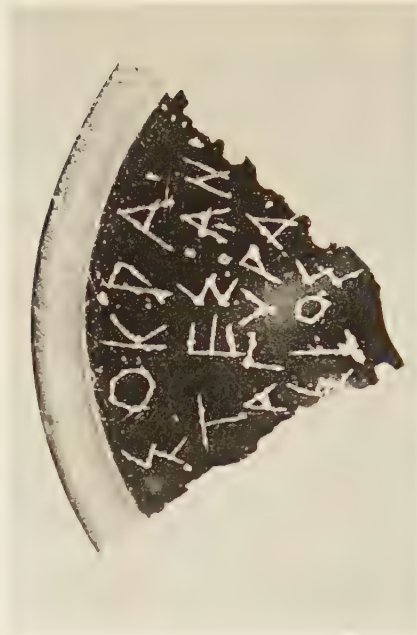




a. Marble Portrait Head (S 1406)



b. Bronze Lamp, Late Hellenistic (B 876)



c. Ostrakon of Sokrates Anagyrasios (P 20325)





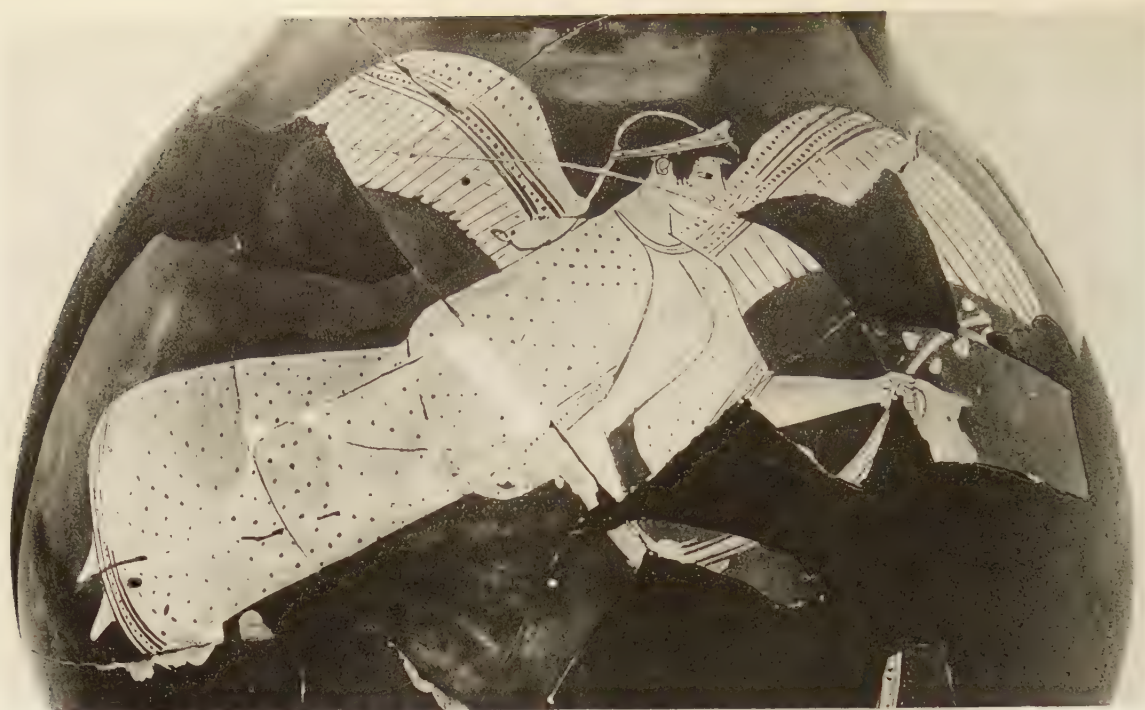
a. Bronze Figurines from a Well at the West Foot of Areopagus (B 880-884)  
(Note modern bases beneath figures second and third from left)



b. Ancient Clay Impression from a Helmet  
Relief (T 2930)  
(Photograph taken from a modern cast)



c. Ancient Clay Impression from a  
Relief Vase (T 2950)  
(Photograph taken from a modern cast)



Oinochoe by the Painter of the Yale Lekythos (P 20076)

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1. Kos, Ovolo, perhaps an Epistyle Crown  
Fig. 4, 1



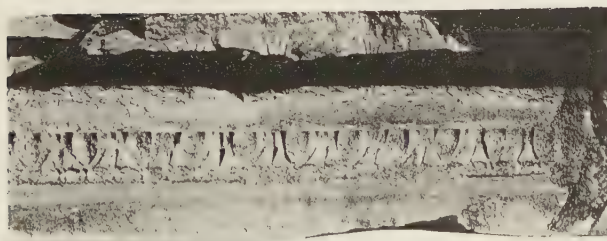
2. Kos, Crown of the Delphis Base  
Fig. 4, 11



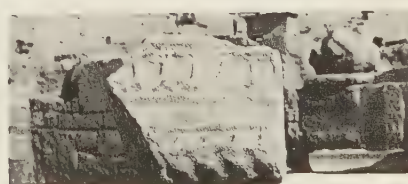
3. Kos, Anta Capital  
Fig. 4, 2



4. Kos, Altar Crown  
Fig. 4, 8

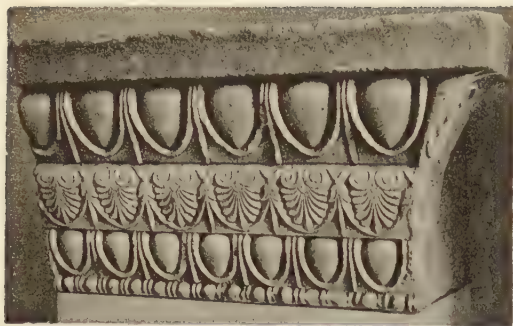


5. Kameiros, Altar (?) Crown  
Fig. 4, 6



6. Kameiros, Base of Altar (?) in 5  
Fig. 7, 5





1. Didyma, Anta Capital  
Berlin Museum  
*PGM X, 4*



2. Kos, Anta Capital  
*Fig. 5, 9*



3. Kos, Fragment  
*Fig. 5, 10*



4. Kos, Fragment  
*Fig. 5, 11*



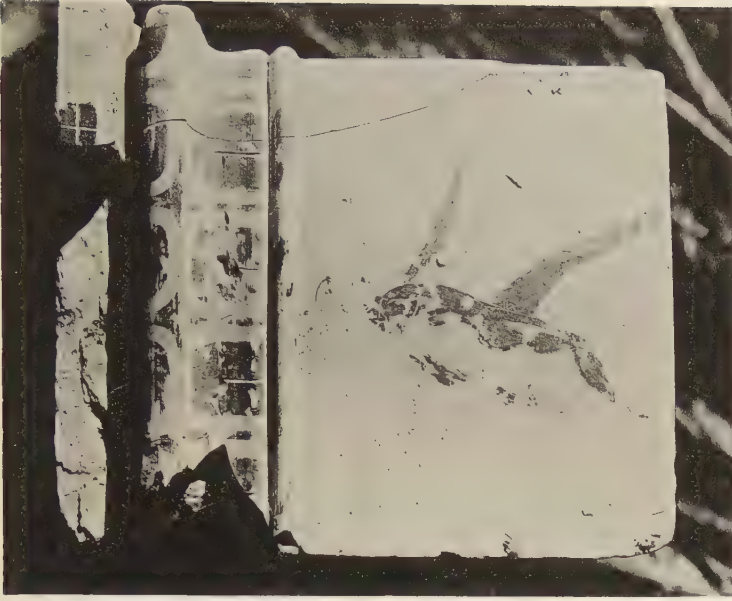
5. Kos, Harbor Quarter, Podium of Sanctuary  
*Fig. 6, 2 and Fig. 7, 3*



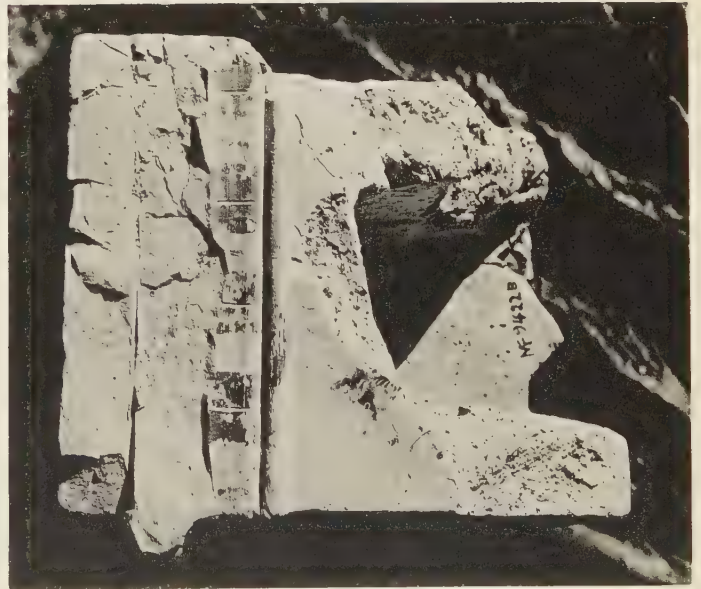
6. Kos, Agora, Stoa  
*Fig. 3, 10; Fig. 8, 11; Fig. 5, 4*



a. Terracotta Altar, Front



b. Terracotta Altar, Left Flank



c. Terracotta Altar, Right Flank



d. Fragments of Terracotta Altar





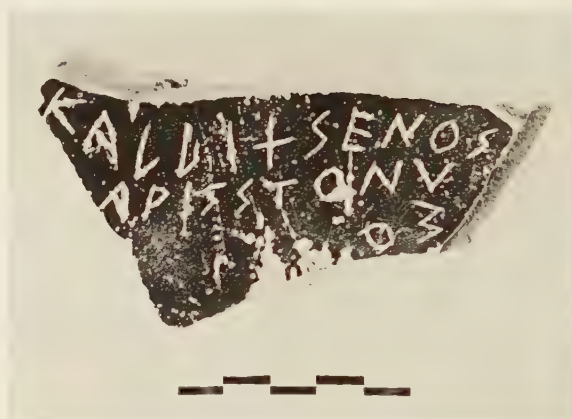
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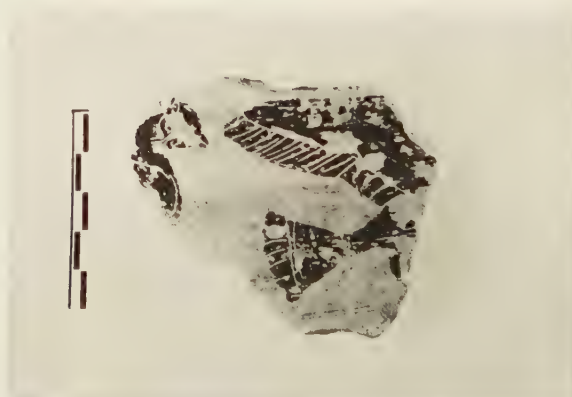
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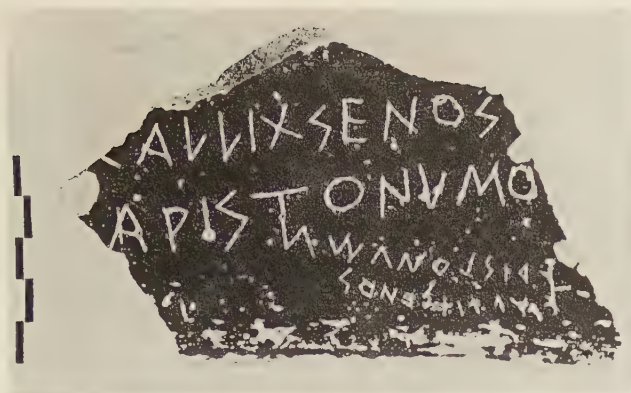


No. 7 inside

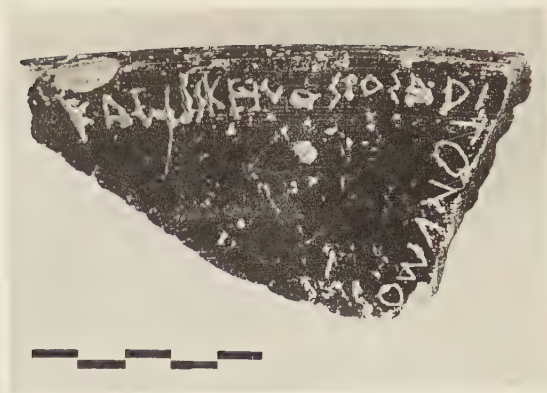


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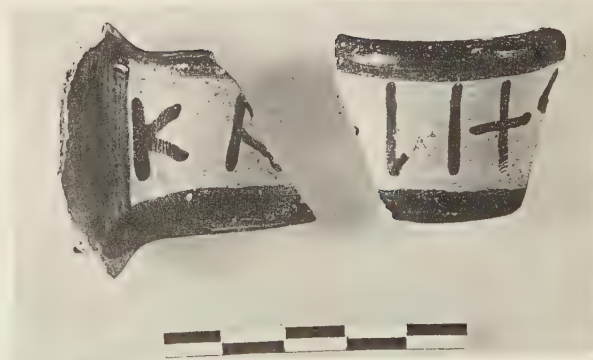
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No. 28 inside



No. 29



No. 34



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